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RAMBLING TALKS ON THE MANURE QUESTION.

The older readers of FARM AND FIRESIDE will probably remember a series of articles on "Practical Farm Chemistry," which I wrote for these columns some few years ago. I was gratified in discovering how deeply this topic interested thousands of soil tillers. Letters of inquiry and commendation were sent to me from everywhere—in fact I have never, before or after, had such a vast amount of correspondence upon a single topic. I welcomed this as a good sign, and as evidence that farmers are now beginning to realize the need of greater attention to the ways and means of making restriction of the plant foods heretofore so shamefully squandered and wasted.

I can assure my friends, too, that I found the study of the principles of plant feeding highly interesting, although at first sight it may appear dry. Only try for once to understand the few things necessary for a foundation, and you will willingly take step after step and be ready for further inquiry. To judge from my own case, I have to put a pretty high estimate on the value of the knowledge thus gained. The schooling I received by the means of writing that series of articles, and the necessity of picking up data and pieces of information here and there, in books on chemistry and on manures, in bulletins of the stations, etc., etc., then by rearranging and classifying all this material for publication in book form, has been worth a clean \$1,000 to me, and perhaps more. And I am not working very many acres of land either. The readers of that series of articles (or of the book) have had this schooling much easier than myself. Here they found pretty much all that was needful in a small compass—a meal already to set down to, while I first had to procure the materials and cook them. But even if the farmer should have to go a little out of his way to pick up this information, he cannot afford to do without it if he wishes to know how to make the best use of his opportunities.

My writings on the manure question were well received. My friends and correspondents, and those among experts whom one might fear as critics, have really overwhelmed me with friendliness and flattery. The matter was getting monotonous. Then, like a refreshing shower after a protracted drouth, bringing the needed variation, came the following letter from D. B. P., Des Moines, Iowa:

"I purchased a copy of your work on manure, etc., and must say that I got the least for my money I ever received in agricultural reading. It's a weak rehash of Gregory, Harris, etc., not even well classified. I am interested in manure and fertilizers and have a dozen questions in mind, yet your book did not answer them or suggest an idea. To point out one weak spot:—What do you tell about the use of land plaster? I shall certainly not advertise your book in a favorable way. The price, size and quality considered, is an outrage."

This letter suggests a number of ideas. In the first place it is a good thing, as already stated, to be interested in manures and fertilizers. It's a first step toward better farming. Then, if a reader of FARM AND FIRESIDE has a dozen questions on his mind he should never hesitate to state them to the editors, or in a letter to me personally, with a request to answer through the paper. I will gladly do so, although I find that the majority of the questions correspondents are apt to ask on this all-important topic were answered in those articles in FARM AND FIRESIDE and in my book also. Take for instance this question of land plaster. The following is a quotation from the book:

"In gypsum or sulphate of lime we have a combination of sulphuric acid with lime and water; in plaster Paris the same compound without water. Being soluble in 400 times its bulk of water, gypsum supplies to plants both sulphuric acid and lime, perhaps directly. Its great value lies in its action upon ammonia, which, in its usual form of carbonate of ammonia is exceedingly volatile. For this it proves a most excellent and effective trap—a trap which a good farmer should not fail to keep well set in his stables and his manure heaps. The sulphuric acid exerts its superior power by tearing the ammonia from its combination with carbonic acid, and taking it to its own heart, forming the compound sulphate of ammonia (which is held in the soil or manure until taken up by the plants, or converted into nitrates), and leaving the carbonic acid and lime to get along as well as they may in the new union of carbonate of lime."

This is really all that deserves to be said about plaster. This article is no plant food in the sense as that term is generally accepted. Most soils have all the lime and all the sulphuric acid required for plant growth. Plaster applications supply nothing that the land is greatly in need of. Yet many of our eastern farmers have, for many years, and with great persistency, given their soil nothing but plaster besides the regular, pitiful allowance of stable manure. Plaster has been considered the panacea for worn-out lands. Year after year these applications have been made to thousands of farms. With what results? The first few crops have been increased at the expense of the soil fertility. Plaster has simply helped the farm on its downward road to ruin. Plant foods were taken off much faster than they were replaced, and plaster has aided in hastening this removal. In short, plaster has, on the whole, been a curse to eastern agriculture. While I am utterly opposed to its direct application to the land, however, I still recognize its usefulness as an ammonia catcher in stables and on fermenting manure heaps. Put plenty of it all over the stable floors when the fleeting ammonia makes its presence known by its pungent smell, especially on opening the stables in the morning.

It is possible, however, that plaster, if dusted over growing potato and other vines, may exercise some influence as a fungicide. A great many compounds of sulphuric acid do. It is worth the trial. This is in reply to my critical friend's query about plaster. In regard to the value of the book, there is simply a difference of opinion between him and myself. Perhaps he is a better judge of such matters than I am; but I would ask him to read the book over once more, carefully—more carefully than he did the condensed remarks on plaster, and see if he cannot find some ideas in it that are worth ten times as much as he paid for the book. Books of that kind need *studying*, not mere reading. And now, friends, if you have any questions about manures and manure applications on your mind, send them along for reply.

T. GREINER.

THE HORSE SHOW.

If the success of an exhibit is measured by the number of people who attend it, then the great horse show which occupied the attention of New Yorkers from November 14th to 19th, must be pronounced as successful to the greatest degree, for Madison Square Gardens were crowded to the fullest capacity from early morning until closing-time at night.

It must be said, however, that from the standpoint of one who is interested in the horse mainly when he can be utilized for the benefit of some branch of agricultural work, the show was a disappointment; as an old newspaper man said to the writer, "It ought to be called an exhibit of pretty women arrayed in horsemen's garments so far as they dared so clothe themselves."

Exhibitions of jumping, hackney and hunting steeds were the features of the show, and this was carried to such an excess that even those whose interest centered in these animals seemed bored.

One longed for the sight of a thoroughbred; an animal for draft, for general purposes, for almost anything but a hunter. But many, like your reporter, wandered through the ring, in the basement to the elegantly appointed stables, and back again, vainly searching for a thoroughbred.

The management of the show made a mistake in this respect, for within a radius of twenty-five miles of New York could have been found a thousand or more of the very finest of thoroughbreds, representatives of their class. As an old breeder of horses remarked in my hearing, "A horse show without the thoroughbreds is like exhibiting the Apollo Belvidere without his head."

In the exhibit of Clydesdale stallions, on the first day, first prize was won by "Queen's Own," bred in Scotland. He is a magnificent animal, a bay, seventeen and one half hands high and six years old. The interest of the crowd was centered, not on the noble Clydesdale, but on the dapple-gray gelding, "Oxford," owned by Hugh J. Grant, mayor of New York, who won the big prize of the day for the best and cleanest jumps. "Oxford" has gained a number of prizes during the past three years, and is considered one of the finest horses among hunters and jumpers.

The exhibit of Shetland and Arab ponies was good, some of the finest stock in these classes in the world being shown. In contrast with the big Clydesdales, and especially with "Energy," the 2,200-pound animal, the Shetland at seventy to one hun-

dred and twenty-five pounds each, looked almost ridiculous. The competition between the ponies entered was most keen, and the exhibition was the finest ever shown in New York. The first prize for class 61, five ponies in harness, was given to an imported Scotch pony. For ponies twelve and not exceeding thirteen and one quarter hands high, the prize was awarded to "Little Chief," a handsome chestnut gelding.

The great contest of the show seemed to be that of the hackney stallions, and as it was open to champions only, and to those who had taken a prize during the week the interest was intense. English horsemen were greatly interested, for this contest was to determine the superiority, at least for the year, of English or American bred horses in this class.

"Beau Lyons," the winner of last year's contest; "Berseker," owned by W. D. Sloane, of New York; F. G. Bowman's "Glendale," and "Bonfire," owned by John A. Logan, Jr., of Youngstown, Ohio, were the contestants. Never did four horses seem so well matched in every point of excellence as these, and they were trotted before the judges a dozen times before the decision was reached which gave "Bonfire" the palm and her owner the special prize of \$500. "Bonfire" is a chestnut with four white feet and blaze face, and was bred by James Frank, of Yorkshire, England, and bought last year by Mr. Logan for \$8,500. His get show great promise.

It is to be hoped that another year the managers of the horse show will make an effort to exhibit animals in which may be found points other than their ability to jump, and in which a larger class of people may take an interest. GEO. R. KNAPP.

Edgewood Experiment Grounds, N. J.

ONION CULTURE.

While the proper cultivation of onions requires more labor than is usually expended upon some other cultivated crops, the readiness with which they are marketed renders it an important money crop. Another important consideration is the fact that onions may be cultivated indefinitely as regards times, year after year upon the same ground, if properly fertilized, which, with careful attention to the eradication of all weeds, and avoidance of the use of any manures that contain weed seeds, renders cultivation, to a certain extent, easier. There is nothing more discouraging in the cultivation of any crop, but more especially of the onion, than to have the young plants overrun with weeds.

We have seen fields under cultivation to onions where barn-grass and various kinds of weeds were so thick that the young plants were completely overpowered, the weeds growing so luxuriantly that their eradication would nroot the crop of onions, and finally, the whole had to be plowed up. Such experiences are very discouraging, but at the same time is an argument in favor of careful and clean culture, for with freedom from weeds that seed there will be less seed to germinate.

We consider a rich, sandy loam best adapted to the onion, although they will grow upon most any kind of soil with proper treatment. We have seen large crops grown upon a poor muck soil, or one consisting wholly of decomposed leaves and vegetable matter. The only trouble in this case seemed to be the enormous size of the bulb, that rendered them objectionable in the market. Another trouble sometimes arose in the adherence of the soil to the bulbs, which does not occur in the case of a loamy soil.

All things considered, we should adhere to the use of the sandy loam for onions in preference to taking any risks with soils of questionable utility for this crop. When onions are grown upon a new soil they are more likely to be coarse and to run to scallions.

An important consideration is the manure. Onions require the best of manure, and plenty of it, in a condition of availability for the young plants. Guano, pig manure, night-soil, hen manure, ashes and well-rotted horse manure are good for onions when liberally applied. A variety of manures, composted and thoroughly decomposed, make a good soil dressing for onions.

The plowing should be shallow. The grower of onions who plows deep, and perhaps brings up some of the subsoil, with a view to having a deep, mellow soil to work easily, makes a serious mistake. Two inches of mellow, highly enriched soil is better than a soil mellowed to a depth of ten inches. If a soil is inclined to be weedy, and seeds will sprout in spring, it would be

better to delay plowing or preparing the soil until many of the seeds had germinated.

After plowing, the smoothing-harrow should be brought into exercise to bring the soil into fine tilth. If at all inclined to be lumpy, the roller should be used before using the rake, which we consider an important matter, for the reason that the smoother and more pulverized the soil, the easier subsequent cultivation.

We use the Planet, Jr., seed-drill for planting, and have found it very satisfactory. Care should be exercised in making the rows to have them straight and of very nearly uniform distance apart, to make the cultivation more satisfactory. Use only the best kind of seed, and at the rate of four pounds to the acre, so as to provide for some loss by the onion maggot.

We have found the Planet, Jr., wheel-hoe a very convenient implement in cultivation, reducing all hand work to a minimum. Frequent use of this will, under reasonably favorable circumstances, keep the soil clean between and very close to the rows, where hand work becomes an absolute necessity. But of one thing the beginner in onion culture may be sure, that very much attention must be given to keeping the soil clean in order to secure success.

Connecticut.

WM. H. YEOMANS.

CARDING THE COWS.

This ought to be a daily winter duty on every farmer who aims to give all animals in his keeping the best possible care. The cows, the oxen and young stock enjoy having their hair combed and brushed as much as human beings, especially when they are tied up and cannot roam at will and "lick" each other.

Every man knows that he can do better work, and do more of it, whether mental or physical labor, when he is in perfect health—when no part of the body draws the attention of the mind to it—when really he forgets his mental and corporal self. This is the result of following the laws of cleanliness and health.

Animals are like human beings in some respects. To obtain from them the best product, they, like men, must be in perfect health and condition, so that their whole being may be devoted to the object for which it is designed. The cow can be coaxed easier than she can be driven. It is not enough to give the cow merely enough to eat and drink; she must be kept clean, and her body kept absolutely at rest.

The card is one means of accomplishing this result. A cow may be milked and she will not stop chewing the cud, but often when the card is applied she stops chewing; her whole attention, if it may be called that, is given to the process that relieves the body or skin of the little itching "kinks and snarls."

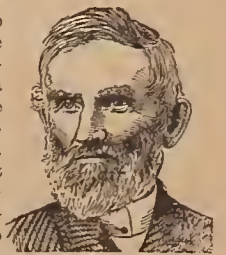
On a large farm, where the cows and young stock do not leave the barn from November till May, there is a regular carder. As the stock is carded regularly every day at about the same hour, the cows look for the coming of the carder, and become uneasy if he does not appear. And when he does come, how the cows enjoy it! The carder is gentle and sympathetic, and rubs the cows where they want to be rubbed. They have a way, understood by the carder, of making known where the application of the card will give the most pleasure. It would be cruelly to keep these cows and these frisky heifers tied up a twelve-month without a regular carding. It is a question if there be not some cruelty practiced as it is, but the carding supplies a part of what all stock must have to thrive.

GEORGE APPLETON.

One good point about dairy farming is that it gives a continuous income through the year. This is better than to get a large sum once or twice during the twelve months.

The Grip

Left me in a terribly weak condition; my health nearly wrecked. My appetite was all gone, I had no strength, felt tired all the time, had disagreeable roaring noises in my head, like a waterfall. I also had severe headaches and severe sinking pains in my stomach. Having heard so much about Hood's Sarsaparilla, I concluded to try it. All the disagreeable effects of the Grip are gone, I am free from pains and aches, and believe Hood's Sarsaparilla is surely curing my



Geo. W. Cook.

Hood's Cures

catarrh. I recommend it to all." Geo. W. Cook, St. Johnsbury, Vt.

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Our Farm.

GARDEN AND FIELD NOTES.

ONION GROWING.—I have read what my friend D. B. Wier says in the issue of December 1st about the "New Onion Culture." Friend Wier should return to the East and teach us poor fellows out here how to grow onions without labor and manure, as they do in California. I was never before so deeply impressed with my dense ignorance about growing onions, as after reading Wier's article. What a preposterous idea for me to write books on a subject I know so little about! Mr. Wier tells us that "there is no need of giving the onions one fourth the work that some give them." Just sow the onions thickly in deep boxes; let them get thoroughly dry before planting; strike a furrow with a plow, throw the young plants in any way, working the soil back on them, and finally firm with the foot. That is about all, with the exception of "running a light harrow or Breed's weeder across the rows a week after planting." Dear me! How easily and cheaply we might grow onions. We might have made money growing them even at twenty cents a bushel, while in our painstaking, clumsy eastern way we had to work pretty hard to make the business profitable even when we sold the crop at from fifty cents to one dollar per bushel.

But friend Wier forgets one thing. California ways are not our ways. The eastern grower who will follow the plan of this new prophet will never make much money growing onions. California climate and soil are indispensable to success in this simplified new onion culture. And, pray, how many bushels has our friend Wier grown on his improved plan?

I have learned one thing, which Mr. Wier seems to have forgotten; namely, that our best-laid plans and theories often fail in practice. Our usually so observing friend happened to come across "the new onion culture" in practice. He saw a good thing, and yet it appears that he did not know it. With all his readiness of pen, and all the pages of manuscript he has written during all that time, I do not remember that he ever alluded to this new method of growing onions. Eastern papers would have been eager to publish such good news, and to pay him a good price for his manuscript. In the same year, and without ever having heard a word of the method before, I accidentally stumbled upon it during my practical garden operations, and I recognized its value at once. Professor W. J. Green also discovered it at the same time. Well, I have made the most of it. This "new onion culture" has been worth hundreds of dollars to me, both in practical onion growing and in a literary way. Both Prof. Green and myself knew the good thing when we saw it; and now, after several years of practicing this plan in a moderately extensive way, I do not hesitate to pronounce it the most important innovation in horticultural methods that has been developed in many years. It is well worth "making some fuss" about, even if the practice were not new in California or in southern Europe. New or old, it is valuable just the same for us eastern growers, for growers west and south, too.

WATERING GREENHOUSE CROPS.—Two very valuable ideas in greenhouse management have recently been worked out by the Ohio agricultural experiment station. One is the watering of certain crops, notably of lettuce, from underground instead of from overhead. The benches are made of matched flooring laid in white lead, so as to be water-tight; the ends and sides are also made water-tight. In the bottom of these beds or benches lines of three-inch tiles are laid two and one half feet apart, and so arranged that water can be applied to each row of tiles as desired. Six inches of soil is then placed on the benches, covering the tiles out of sight. I am just now arranging some of the benches in my newly-constructed little greenhouse in this way, with the exception that I use two-inch tiles, and I anticipate great results from the arrangement. The tiles are laid across the beds, to be sure of a quicker and uniform distribution of the water.

In the tests of the station the effect of this sub-irrigation upon the growth of both lettuce and radishes was remarkable, and decidedly beneficial upon cucumbers. The first crop of lettuce last winter upon the sub-irrigated bed was about thirty per cent heavier than the crop treated in the ordi-

nary manner. In the second crop the difference was still more in favor of sub-irrigation. Sub-irrigated radishes came to marketable size earlier and were larger than those grown by the ordinary method. The difference in earliness was more marked than in total weight. The station also thinks that when greenhouse beds are properly arranged for sub-irrigation, watering is less laborious than by the old method, as it need not be done so frequently nor with the same care. The amount of water required is easily determined by the condition of the soil and appearance of the plants, just as by the ordinary method of watering. The station expresses the hope that others will give the method a trial and report results. This should be done, for the idea is certainly full of promise.

The other valuable idea is that of the "water-bench." This is of especial importance to people who have to start fine seeds in flats, such as, for instance, celery seed for the early (summer) crop. I think it is a capital idea, and shall not be slow to take advantage of it in my practice. This "water-bench" is made water-tight, and constructed on the same plan as the benches used for sub-irrigation, except that the sides, for convenience, are only two inches high. The use of these water-benches is to water seed just sown and young plants recently transplanted, without the application of water to the surface of the soil. Seeds are sown in flats having about two inches depth of soil. These flats are then transferred to the water-bench, and watered by means of sub-irrigation, which is accomplished by letting into the water-bench sufficient water to soak the soil in the flats quite thoroughly, but not enough to make it mortar-like or pasty. Small plants are transplanted into flats and treated in the same manner.

To save valuable space, a water-bench may be constructed in a part of the house that is devoted to young plants, and immediately under this another bench may be put of the same dimensions, to be used for germinating seeds, as little or no light is required for that purpose. It should be a foot or more below the bottom of the upper bench, so as to give room to pass flats in and out easily. The flats in which seeds are sown may be kept in the lower water-bench until the seeds germinate and the young plants appear. Of course they must not be kept in a dark place much longer if injury to them is to be avoided. In the upper bench, young plants may be kept as long as desired, and watered by sub-irrigation as often as need be. This method of watering is satisfactory and saves labor. Not only can the soil be evenly and thoroughly watered in this manner, but there is no danger of washing out seed, nor of knocking over young plants. Indeed, we are learning newer and better ways of managing garden and greenhouse crops all the time. Bulletin No. 43 of the Ohio station, which contains information on these and other matters, has been to me one of the most interesting of the many interesting bulletins issued by that station for a long time. Every gardener in the land has just reason for gratitude to the able officers of that station for their fruitful researches and efforts.

JOSEPH.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

GRAFTING GRAPES.

About twenty vines of the Wyoming Red grape were used for each kind of graft, and the scions of Niagara were inserted. With one exception, the scions were about ten inches long and carried two or three buds; the stocks were six years old. The work was done April 4th, the weather at the time being quite warm and the sap was flowing freely. The following is a brief outline of the various methods used and the results reached:

(1) In this case the scions were inserted in the stock by the ordinary cleft-graft. The stock was cut off about three inches above the ground, and after the scions were inserted all cut surfaces were covered with grafting-wax. None of the scions lived.

(2) The same method was again adopted, but the wounded portions were protected with a thick layer of clay and cow manure, mixed in equal proportions. This dressing is said to be of much value in grape-grafting, but in this case its virtues were not manifest. All the scions died.

(3) This method is called by Baltet side-grafting with an oblique cleft. A slanting cut is made downward on the side of the stem, at any desired height, but the knife is drawn down much further on the side toward the handle. Into the oblique cut a

wedge-shaped scion is inserted and tightly bound; no wax applied. None of the scions grew.

(4) The operation was performed as described in 1, but the stock was cut below the surface of the ground and just above the highest roots. All cut surfaces were covered with common grafting-wax, after which the earth which had been removed was replaced. This method gave better results, for about sixty-one per cent of the scions made a fine growth.

(5) The work was done as in 4, but no wax was used. Sixty-eight per cent lived.

(6) The stock was cut below the ground, as in 4. Two longitudinal V-shaped cuts, about one and one half inches long, were made upon opposite sides of the stubs, and the scions were cut so that they fitted into these grooves as neatly as possible. They were then securely tied, but no wax was applied. In the fall, eighty-six per cent of the stubs carried vigorous canes.

(7) The stock was prepared as in 4. Upon one side of the stub the bark was cut away so as to leave a flat, smooth surface about two inches long and half an inch wide. The scions were cut about eighteen inches long, and eight or ten inches from their upper extremities a cut similar to that in the stock was made, only it was not so wide. The two cut surfaces were pressed together and firmly tied, the lower extremities of the cuttings being buried in the soil. This method gave the best results, for fully ninety-three per cent of the stubs (or the cuttings) carried canes in the fall. The growth was much stronger than that made by ordinary cuttings, for in some cases it aggregated fully seventy-five feet.

From these experiments it would appear that the best place to graft vines is under ground; whether wax or any covering other than earth is beneficial still remains to be determined. In these experiments the wax did not seem to do much good. If the scions were inserted by the cleft-graft and almost buried with earth, excellent results would probably be obtained, and this method can be most safely recommended. Methods 6 and 7 may even be better, but the operations are more tedious.

The French have not contented themselves with using only mature wood in grafting the grape; they have given much attention to this subject, and some advise the use of soft wood. The following extract from an article by Reue Salomon, which appeared in *Vigne Americaine*, will give a fair idea of the manner in which this work is done:

"Herbaceous grafting is very easily performed; in half an hour a novice can become so skillful in the operation that from eighty to ninety per cent of the grafts will be successful, provided: (1) That the vine is in its most active period of growth; (2) that the weather is sufficiently warm (at least sixty-five degrees Fahrenheit); (3) that the shoots used are sufficiently strong, and neither too hard or too soft; they should still be flexible, yet the center should be free from pith; (4) that the scions are placed beneath the fourth bud from the extremity of the shoot; (5) that the scions contain, at most, only two buds. After being cut they should be kept a few days in damp, fresh grass, and they are then ready for use. In fact, the most essential condition for success is the more or less herbaceous condition of the scion and the stock."

The splice-graft is the method recommended by Salomon. He advises making the oblique cut through the center of the joints, both in the scions and in the stock. The cuts are made as nearly the same as possible, and the two pieces are then firmly tied together with a rubber band, for this is preferable to raffia, on account of its elasticity. After the operation the graft is protected from the sun and rain for about ten days, by simply rolling a grape-leaf about the place of union. In four weeks the rubber may be removed, for at that time from two to three inches of growth should have been made by the scion.—*Garden and Forest*.

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Root-grafting Apples.—M. C., Columbia, Tenn. Apples may be successfully root-grafted at any time from January 1st to March 1st. The roots and scions should be stored in a cold, moist cellar before and after grafting. The unions are made as shown in the cut herewith. Fig. A shows the way the scion is cut off and the slit in it. Fig. B shows the same

in regard to the root. Fig. C shows the two put together. The scions should be about five inches and the root about four inches long. The joints should be covered with waxed paper prepared by painting strong manilla paper with melted grafting-wax. The roots should not be over one half inch in diameter, and smaller roots are just as good. Almost every nurseryman has his own idea as to the details of root-grafting, and there has been much discussion recently as to the best way to do the work, but while there is often a choice between methods, yet good trees are not limited to those grafted in any special way. Some growers will use a very long scion and only a short piece of root, thereby getting several stocks from one root. Others prefer a whole root and short scion, while still others



prefer a long scion and long root. I think the latter plan the best, at least for a cold climate, as the grafts then have a strong root to start them into growth, and as the scion is quite deep in the ground the tree soon gets on its own roots. Some growers only tie the unions together with waxed string, others use waxed cloth. But the fact that so many diverse treatments succeed is proof of the simplicity and certainty with which the operation is performed. For article on budding, see FARM AND FIRESIDE for June 1st. A good grafting-wax may be made by using four parts resin, by weight, two parts beeswax, one part tallow. Melt together and pour into cold water. Then grease the hands and pull the wax, as molasses candy is pulled, until it is white.

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ENRICHING THE PASTURES.

IF every man at the beginning of life knew what he was going to do, he could make his plans accordingly. If the farmer could decide at the outset what part of agriculture he would take up and stick to, great advantage would accrue to him.

A "specialty" farmer, decided as to future operations, might select land and arrange buildings to complement the work to be done. The sheep farmer would select a different "lay" of land from that of the dairy farmer. But while ready-made laid land was once accessible, it is so no longer, except in the far West, and therefore the farmer must be content with what he can find or with what he has, and make it serve his purpose.

The selection and maintenance of pastures is as important as anything on the farm, and yet pastures are neglected; indeed, left to themselves to thrive on the droppings alone of the animals pastured, and the result is a contraction of the farm, not only of the pastures themselves, but also of its cultivated area.

The pasture that supported twenty head last year may support only fifteen head the next year, and if commercial fertilizers cannot make up the deficiency, the income of the farm dwindles in proportion.

In the selection of pasture land, this rule generally governs: The land near the buildings is reserved for cultivation, while the land remote is used for pasturage, and the result is often, if not usually, that the pasture land is inferior at the start, and gradually deteriorates if not renewed.

Here is a dairy farm. Buildings and cultivated land are in a fertile valley, while the pastures are on the hills sloping down to the valley. Now the crowns of these hills and a third of the slopes are practically barren, producing a slender growth only in the spring. Fifty and sometimes sixty cows are pastured here, and the barrenness of the hill tops is due in great part to the habits of the cows.

If sheep had been pastured here the result would have been different. When sheep lie down, they seek the highest land, and that is one reason why high places in sheep pastures are richer than in pastures where cows are kept. Cows, on the other hand, seek usually the low land when they lie down to chew the cud.

If, however, the outlets to the pasture, the "bars," are on high land, the cows near the close of the day may lie down near the bars, especially if they are fed, as is the custom on some farms where the feed is short, with fodder corn, thrown into the pasture near the bars.

On the farm referred to, the feeding at the bars and the habits of the cows, the lying down after the feeding usually where they were fed, suggested feeding on the hills. Corn was planted as near as possible to the high land of the pastures. At first the cows, after feeding, returned to the low lands to lie down, but after the feeding had been repeated a few times, the cows went to the hills long before the time to feed and waited for it, and in time remained after feeding, for usually a cow after eating—eating as she does from fodder corn—does not go far to lie down.

The tops of the hills and the slopes began to improve by this natural method of enriching. Care was taken that the droppings were evenly distributed over the surface and not left in heaps. The tops of hills may not become as fertile in pastures under any method of treatment as the valley, owing to the rain wash and the drouth which affects high places first, but by the system of soiling, and by taking advantage of the habits of the cows, they may be much more fertile than they are. It is true that manure might be carted to the hills instead of the corn, but the object is to distribute the pasture manure.

GEORGE APPLETON.

RABBIT-TRAP.

Make a square hole in a barrel about three fourths of the way from the bottom to the top. Bury the barrel near the runways of the rabbits so the lower side of the square hole is just above the surface. Make a square box twenty inches long, with both ends open, to work easily in the hole in the barrel. Balance the box in the hole in the barrel so that the outside end rests lightly on the ground. Cover the top of the barrel with plank, throw an armful of corn fodder over all for a blind, and you are ready to dump them in as fast as they come along.

Colorado.

J. A. VAN HORN.

WILD SHEEP.

The wild sheep found in various parts of the earth are mountain sheep. Whether they are there for safety or whether it is their nature to occupy the mountainous regions is an unsettled question. It is certain that no animal adjusts itself to its surroundings more definitely and readily than the sheep; nor does any animal find the dry, rolling or level lands better suited to its highest development than the sheep. Wherever human beings can live by possible agriculture, sheep can find a place and opportunity of usefulness.

Most species of wild sheep belong to the continent of Asia. Two species, perhaps, are found in North America, more or less similar to the Asiatics, and probably were by some means transported across the Behring strait. One species of wild sheep is found in southern Europe, and one in northern Africa. The wild sheep of South America that we used to read about were alpaca, a domesticated species of the llamas or vicuñas, both being species of the guanaco. The musk-ox of the arctic regions, while not a true sheep, affords a useful sort of wool for the use of the natives. As said, the sheep belongs to agricultural people, and geology shows the correlative occupation of the earth. The debris are always found together.

R. M. BELL.

CORRESPONDENCE.

FROM WASHINGTON.—We have delightful weather in summer and winter; no hot nights in summer or cold winds in winter. We never have any severe thunder-storms or cyclones, or blizzards or electric storms. There is plenty of good government and "school" lands here in Stevens county, near schools and railroads. The country is mountainous, but much of it can be tilled, as it has very fertile, deep soil. Springs, lakes and beautiful mountain streams are very numerous. Plenty of game makes a sportsman's paradise; deer, bear, lynx and smaller animals, besides grouse, pheasants and prairie chickens are to be found in the hills. Not many large openings are to be found fit for cultivation, as this is a timber country, but the broken or rocky land makes the very best pasture land. The natural resources are pine, fir and tamarack timber; granite, marble and limestone; slate and nearly all kinds of ore. Most kinds of grain, grasses and fruits do well, especially small grain and fruits. The winters are short and mild. Almost every winter stock live on the range, but it is more profitable to keep them in a more humane way. Most of the new settlers are more thrifty than to expect their stock to "rustle." Sober, industrious men and women—especially single women—will be welcomed.

G. H. K.

Colville, Washington.

FROM MISSISSIPPI.—The mornings and evenings are cool, but by ten o'clock A. M. the chill is off, and people go out into the genial sunshine and charming atmosphere without overcoats or wraps. The northerners sojourning here find a climate just now corresponding with June weather at home. A considerable number of people have arrived at various points on the coast, from Illinois, Wisconsin, Michigan, Minnesota, the Dakotas, Nebraska, Kansas, Indiana and other northern states. Most of them came to escape the rigors of a northern winter; quite a number are here for the benefit of their health. There can be no question that this climate is very beneficial in pulmonary diseases, catarrh, throat troubles and asthma. Possibly some reader may think that this testimony is not altogether unbiased. Let me say that no other motive or inducement prompts it than a free and frank expression of a fact which will not be gained. It is a problem of climate, and the conditions and circumstances are favorable to health. Sidney Smith once said: "With the thermometer under twenty or over seventy degrees all human affections cease; one is occupied solely with his own misery." While strongly put, it illustrates the comfort and happiness that wait upon an equable, genial climate. And this brings to mind the fact that many people in northern states are contemplating a change of residence to a warmer latitude. They desire to live in a less rugged climate, where long and tedious winters which cover nearly half the year, never occur; where blizzards that sweep from the storm-breeding regions of the far north never come, and where long and withering drouths do not consume vegetation and destroy crops. And other considerations impel persons in the North to make such a change. I have found that a score or more of men from the northwestern states have bought property and settled in this region. The development of the natural resources of this coast country has long been delayed, but matters seem to have reached an auspicious turn. There are inducements to industry, enterprise and skill which are attracting considerable attention. The opportunities for safe and profitable investments in agricultural, fruit and timber lands are hardly equalled elsewhere in the United States. In ante bellum days, I am told, lands were held at much higher figures than they have since brought. The explanation is found in the changed condition of the affairs. The

transition in the labor system had much to do with it, and along this coast people were slow to adapt themselves to the situation which necessarily followed the strife. But the causes that so long retarded the growth of this section have practically ceased to exist. Heart-burnings, resentments and jealousies, save in a few isolated instances, belong to the past. The intelligent majority here long since discerned the course to take for the betterment of the country. I have never found a more courteous or friendly class of people than I have met on the coast. Whatever may or may not be true of other localities, of this region it is a fact that, so far as I have discovered during a year's residence, there is no offensive attitude toward newcomers, who are either transient visitors or have come to stay, notwithstanding the recent national quadrennial contest, and that on national issues the writer was on the losing side. Happily, here at least, unpleasant reminiscences have been relegated to the rear. I have received many inquiries about this favored section of our common country. A few general facts are not out of place in this connection. In quality and fertility of soil along the coast the land differs in degree, as is the case in all parts of the Union. Save in limited areas the subsoils are sufficiently tenacious and retentive of moisture and possess elements of fertility ample, with intelligent cultivation, to render them highly productive. In a previous letter I mentioned the ordinary yields per acre of farm crops. I have said, and say again, that naturally the soil is a sandy loam underlaid with clay, as a rule. In places it is too light, but generous nature has placed side by side with it vast quantities of decayed vegetable matter in the muck of the bayous, in the vast deposits of shells and the refuse wood everywhere present. Analysis will show that the constituents needed most are phosphoric acid, lime and potash. Some time ago my investigations and inquiries led to this conclusion. A few days ago a practical test which accidentally came under my observation, in a marked degree demonstrated the correctness of the views entertained. Hon. Wm. B. Schmidt has a considerable tract of land here adjoining his elegant summer home on the beach. He has improved some of this tract, and made a number of intelligently-directed experiments. On a small plot he planted last spring Irish potatoes; a fine crop was taken off, and the ground planted in sweet potatoes. I saw this crop after it was dug, and am certain the yield was at the rate of three hundred bushels per acre. Sweet potatoes seldom bring less than fifty cents a bushel, and sometimes bring a dollar a bushel. This same ground could have been used for another crop at once, turnips, cabbage or some other. "Stephen," I inquired of the colored man on the place, "What do you use on this land to bring such crops?" "Wall, sah," he replied, "does ye see dat pit over in dat field? I burns oyster shells wid wood; Mr. Schmidt tells me to mix de lime and ashes wid muck took out of de fish ponds four or five months afore. Dats what duz it, sah!" Here was an actual practical demonstration of the matter. How easily and how cheaply this material can be obtained and utilized hardly need be mentioned. It renders expensive outlays for commercial fertilizers unnecessary or reduces that expense to the minimum. The infinite source of life and power has dowered this strip of coast country with gifts rich and priceless. Its delightful climate, its equable temperature, its remarkable healthfulness, its great diversity of products—natural and cultivated, including many of the finest and most delicious semi-tropical fruits—its situation along the Gulf of Mexico, its wealth of sea-food—fish, oysters, terrapin,

crabs, etc.—its opportunities for boating, bathing, fishing and hunting, its magnificent forests, its flora, endless in variety and matchless in beauty, its proximity to the great commercial emporium of the South, its accessibility by speedy and luxurious transit to northern cities, all these and other things, render it in the opinion of many persons, the most desirable portion of our favored land. Let me say, as before, that I will cheerfully answer inquiries about this region.

T. H. G.

Ocean Springs, Miss.

FOR SALE CHEAP Farm of about seventy acres in Warren County, O. With in two miles of Station. Good house and barn. Call on or address JAS. W. RICHARDS, Clarksville, Clinton Co., O.

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THE AMERICAN EXOTIC NURSERIES, R. D. HOYT, Manager. Seven Oaks, Florida.

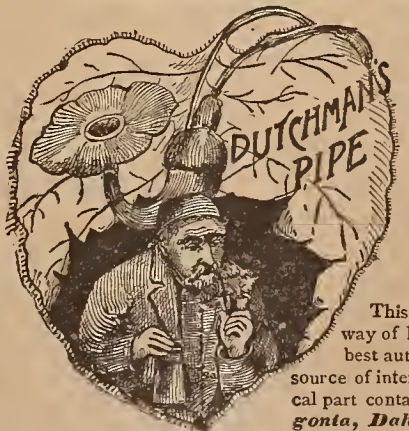
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THE POETS' NUMBER Vick's Floral Guide, 1893.

This year we have combined a most novel and charming feature in the way of hundreds of beautiful and appropriate poetical quotations from the best authors, making **THE POETS' NUMBER OF VICK'S FLORAL GUIDE** a source of interest and pleasure the whole year. The practical part contains **Colored Plates of Alpine Aster, Begonia, Dahlias, Dutchman's Pipe, Clematis, Pansies, Cannas, Corn and Potatoes,** hundreds of Engravings; descriptions of the sweetest and most prolific **Pea—The Charmer, The Golden Nugget Corn,** which was such a favorite last summer, **new Roses, new Chrysanthemums** and scores of other grand and good things. Names and prices of everything one could desire in way of Flowers, Vegetables, Plants, Bulbs, etc.

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Our Farm.

THE POULTRY YARD.

Conducted by P. H. Jacobs, Hammonton, New Jersey.

HARDINESS IN BREEDS.

THERE are a great many breeds that excel those in general use, and they are first-class layers, but the experience of farmers has prevented the introduction of some of the new breeds on farms because they are lacking in hardiness. The Plymouth Rock is perhaps as widely distributed as any breed, and it is a favorite, yet it is neither the best breed for laying nor for market. On the table the Dorking is as far superior to the Plymouth Rock as it is possible for two fowls to vary, but the Dorking is not as hardy as the Plymouth Rock, and the chicks are difficult to raise. Could a contest be made between a Hamburg hen and one of the Plymouth Rock breed the probability is that the Hamburg would greatly excel the other, but when winter sets in the Hamburg is not as capable of enduring the cold as the Plymouth Rock, and is more subject to roup. Nearly all readers inquire which are the best layers. The inquiry should be for the hardiest fowls. The Plymouth Rocks, Brahmas, Cochins, Wyandottes and Leghorns seem to hold the first places, and it will be a long time before they are supplanted by any new breed, unless such new breed combines hardiness with extraordinary egg production. The Hondan and the Dorking take the lead as table fowls, but they are lacking in some other respect. The Indian Game is also a fine table fowl, and seems to be harder than the Dorking, but it is not yet well known.

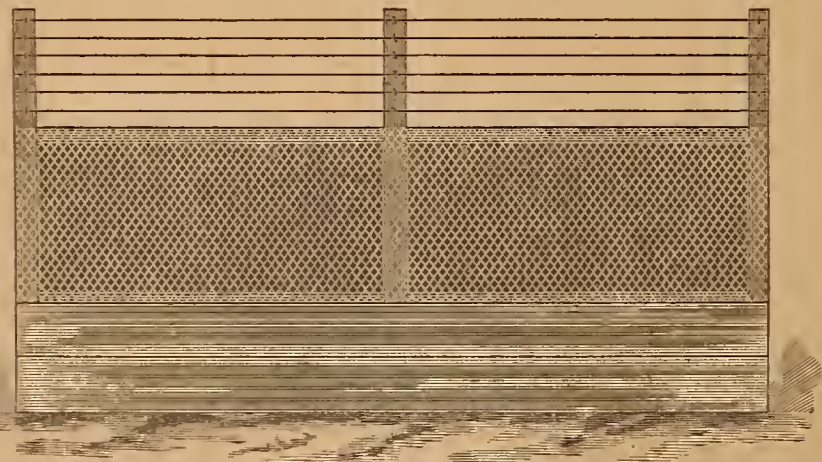
In selecting a breed, let the first consideration be for hardiness in preference to all other qualifications, as such fowls give the largest profit for an entire year.

FERTILE EGGS.

Many methods for determining the sex of eggs have been suggested, and the same theories that were proposed years ago come to the front now. In this connection one of our subscribers at St. Anthony's Bay, Jamaica, West Indies, says:

"Have you ever observed that some eggs were marked as if the material for marking was too much, and was twisted off, leaving the marks of the twist a little raised off the smooth shell? Put as many of these marked eggs as you choose under a hen, or in an incubator, and if they do not hatch all cockerels, try as many of the smooth good ones, and see if they don't give pullets. I have tried eggs from fowls and turkeys, and they have hatched correctly."

We will state that the suggestion above is not a new one to us. A hen may lay all smooth eggs day after day, yet her chicks will not all be of one sex. However, the



WIND-BREAK FENCE—BOARDS.

suggestion was kindly sent for the benefit of our readers, and it will cost them nothing to try it, while we will, on our part, be pleased to learn the results from the readers who may experiment.

BROILER FARMS IN THE WEST.

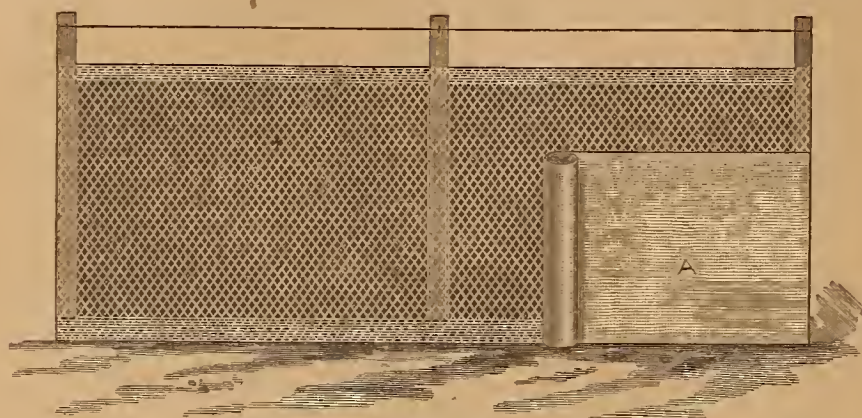
It has been asked why nearly all of the broiler farms are in the East, and why St. Louis, Chicago and other large cities are not as good markets as New York City.

Our experience is that any large city is a market. Broilers in winter are not so easily raised as to place the supply above the demand, and one who has early chicks for sale need not ship to any great distance to find purchasers. It is also a mistaken supposition that nearly all the broiler farms are in the East. The fact is, that what are termed "broiler farms" are no farms at all, the largest of them seldom

exceeding half an acre of ground, and there are a great many in the West as well as in the East. There is no reason why raising early broilers should not pay in one place as in another. The supply of chicks in the spring, after the hens become broody, is nearly equal to the demand, but in mid-winter, when such work must be done with incubators, the supply of early broilers is very limited, and not equal to the demand.

WIND-BREAK FENCES.

The two designs of fences in this issue are intended to serve as combinations. First is the open wire fence, through which the wind sweeps. This is made by nailing the wire to a top and bottom strip, or narrow board. To the right, at A, is a roll of thick muslin, which may be fastened along the fence, to serve as a wind-break. It may be removed in summer and stored away, and should last two seasons. Second, as a protection against hens that fly over the fence,



WIND-BREAK FENCE—MUSLIN.

a strand of wire is fastened from post to post, at any distance above the fence that may be preferred.

The second fence has boards at the bottom, the boards being at least two feet high, to which the wire is fastened. The numerous strands of wire, over the woven wire, running from post to post, are intended to show that two or more wires may be used, and that, with high posts, a few strands of wire will answer all the purposes of woven wire, while the cost of the fence will be reduced to a minimum.

PREPARED FOOD FOR CHICKS.

Specially-prepared chick food is now on the market, and it will greatly aid those of limited experience in raising chicks in winter. Such foods are the results of experiments made in raising chicks from the shell to market, and are composed of the essential elements of growth. They are not used exclusively, but as an adjunct to the regular rations.

THE COST OF A BROILER-HOUSE.

How much does it cost to build a broiler-house? Considering the fact that a broiler-house is any kind of a house that one prefers to build, the cost depends on the size and design of the house. A house

fifty feet long may be built for seventy-five dollars, or it may cost five hundred dollars.

When one contemplates building a house of any kind he adapts the plans to the amount of his capital. The best kind of house is the one your capital permits you to build. If you want an elaborate structure, it requires capital. No one can estimate how much a house will or should cost but he who is to pay for it.

BUY YOUR BIRDS NOW.

If you wait until March or April you will find it very difficult to procure pullets at any price, of the pure breeds. Even now it is rather late in the season for securing pure-bred stock, but a surplus may be found for a short time. Breeders never keep their stock on hand after Christmas, if it can be avoided, so now is your opportunity.

CUT CLOVER.

The way to feed clover to hens is to cut it very fine. If not cut up fine it may cause crop-bonnd. About half an inch in length is fine enough. Place the clover in a pail after it is cut, and pour just enough boiling water over it to moisten it well. Then throw a cloth over the pail and leave it to remain until morning. In the morning pour more boiling water over the clover, so as to warm it, add a little bran and meal and feed it to the hens in troughs for the morning meal. It is the best and cheapest of all foods for laying hens in winter, and takes the place of green food.

FROZEN FOOD.

If ground grain is fed by moistening it, a portion will be wasted unless care is exercised in feeding. It is better to allow the hens but half a meal rather than to give too much. During very cold weather it will be impossible to prevent the soft food from becoming solid, and for that reason it is

advisable to use dry food as much as possible. The whole grains are an advantage in the winter season, because they can be scattered so as to induce the hens to scratch. All soft food should be fed warm, and if any portion is uneaten it should be removed and the troughs cleaned.

USE THE DECIMAL SYSTEM.

Ten hens in a house that is ten feet square, with yards ten times the size of the house, is a rule to follow. Ten hens with one male is the correct mating, and ten eggs under a sitting hen, in winter, are enough. Ten weeks is long enough to keep a broiler before it goes to market, and a pair of ducks or fowls should weigh not over ten pounds. Ten cents per pound is near the average price for fowls in market, and ten cents should feed a hen one month.

TOO MANY TOGETHER.

Ten hens in a house that gives them plenty of room will lay more eggs than twenty that are crowded; hence, one not only gets fewer eggs when there are too many hens together, but the cost of the food is greater and the amount of work increased. Trying to do too much on a limited area has caused many failures, and the proper plan is to keep but a few hens rather than too many.

WHERE TO BUY.

We receive quite a number of letters asking where to buy breeds, articles, etc. We would suggest to each reader to first look over the advertisements, as it may save the delay of writing. We aim to have none but reliable advertisers, and those who have articles for sale and do not advertise them simply entail a loss on themselves, as the readers are good buyers at this season.

CORRESPONDENCE.

SALT FOR POULTRY.—Salt in certain quantities will kill not only chickens, but hogs and other animals. If a hog gets an overdose he throws it up, and in that way gets relief. Farmers use ashes with salt to prevent a too free use of it. The chicken has never learned to vomit. If it gets an overdose it is compelled to sing "Farewell, vain world." Salt in dough or bread has carried many fine gangs unto death. Salt is a condiment, a disinfectant, a germ destroyer, etc. It will destroy the vitality in many of our plants and seeds. It will destroy the germs of parasites, vegetable and animal. It will in many instances do more. It will dislodge them even after they have found a lodgment on or in the animal. Physiology reveals many facts just on this point. One must suffice. It has been shown that man, without the use of salt, would be literally eaten up with worms and other parasites. Some parasites never can be removed after they have once secured a lodgment (may I not say as in chicken-cholera), and just here is where salt is so useful. It prevents and is better than a thousand attempts to cure. Salt will disinfect houses, roosts, yards and the birds. I am apprised of the danger of "generalizing" from a few ap-

parent facts. I wish to give one. Late this fall I had a hen with a fine gang of chickens. She became self-willed and stubborn, and like all such hens are, likely to run into danger. She was determined to roost in a certain barrel, in spite of me. I have had sick chickens in that barrel for a month, and many have died in it, and sick chickens go and stand in it every day, and leave their droppings. I determined to let her have her way, and see what she would come to. I covered the dependent side of the barrel with salt, never removed any of the droppings, but kept filling in with salt. She never had a sick chick. Keep salt from eggs if you expect them to hatch. J. R. C.

Rockfield, Ky.

INQUIRIES.

Wheat and Rye.—C. B. F., Homestead, Mich., asks: "How does wheat compare with rye as an egg-producing food?"

REPLY:—They are nearly the same. Rye contains 11.4 per cent of flesh-forming matter, and wheat 11.3 per cent. Of heat-producing elements, rye contains 67.8 per cent, and wheat 69.6 per cent.

Roup in Turkeys.—Subscriber, Raymond, Kan., asks: "My turkeys have some disease that I do not know. They droop, their heads turn pale, and they have a discharge from the mouth and nostrils. Their droppings appear as if they had cholera. I had eighty turkeys and have lost all but twenty of them."

REPLY:—It is roup, due to exposure. The disease is contagious, affecting the lungs, throat and bowels. There is no cure to be considered certain. Keep them in a warm place and add a teaspoonful of chlorate of potash to each quart of the drinking water. If not too laborious, inject five drops of kerosene in each nostril once a day.

Window-sash.—J. A. S., West Elizabeth, Pa., asks: "Will some reader give a plan for window-sash that is less expensive than manufactured sash?"

REPLY:—We will be pleased to have any reader respond.

Peafowls and Turkeys.—C. L. W., St. Louis, Mo., asks: "Will a peafowl breed with a turkey if I have one of each, and no other fowls on the place?"

REPLY:—We have never heard of or seen such a cross, as they are rather antagonistic.

Loss of Turkeys.—Subscriber, Franklin Square, Ohio, asks: "What is the cause of turkeys dying when almost half grown, the droppings being brown or yellow?"

REPLY:—Your description of symptoms is too imperfect. The probability is that they have been exposed by roosting where there is no shelter.

Probably Apoplexy.—E. R., Ensinatas, asks: "We have a turkey afflicted with a complaint. The neck is drawn back and he staggers like a drunken man, sometimes falling on his back, or spinning around. We had a rooster affected in the same manner."

REPLY:—It is probably due to pressure of blood on the brain, caused by high feeding and the use of stimulants in the food. He is no doubt in a very fat condition.

Nothing On Earth Will

MAKE HENS LAY.

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Strong and Healthy; Prevents all Disease.

Good for Moulting Hens.

It is absolutely pure. Highly concentrated. In quantity costs tenth of a cent a day. No other one-fourth as strong. Strictly a medicine. "One large can saved me \$40; send six to prevent Roup," says one customer.

If you can't get it send to us.

We mail one pack 2c. Five \$1. A 2 1/2 lb. can \$1.25. Six cans, \$5.00, express paid. Poultry Raising Guide, price 25 cents, free with \$1.00 orders or more. Sample copy of THE BEST POULTRY PAPER sent free.

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PURE BRED WHITE HOLLAND TURKEYS. Prices reasonable. J. P. Morrison, Portersville, Butler Co., Pa.

WHITE HOLLAND TURKEYS in pairs. No akin. Mrs. Borton, Damascus, Columbia Co., Ohio.

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Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Old Coins.—E. F. A., Bayou Chicot, La. Send 25 cents to this office for the "Reliable Coin and Stamp Guide," which gives descriptions and value of rare American and foreign stamps and coins.

To Keep Mice from Harness.—E. B. E., Normal, Ill., writes: "Please tell me how to keep mice from chewing harness."

REPLY:—Out of a few boards you can make a mice-proof closet on one side of your stable wall, and keep your harness hung up in it when not in use.

Book Wanted.—J. M., Shields, Col., asks: "Where can I obtain a book on trapping all kinds of wild animals?"

REPLY:—Dick & Fitzgerald, New York, publish such a book. Ask for the "Amateur Trapper and Trap-maker's Guide." Paper cover, 50 cents; cloth, 75 cents.

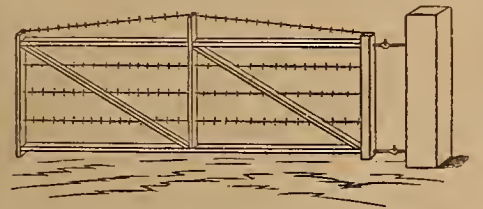
Spading the Garden—Calladium Bulbs. J. A. C., Hilliard, Ohio, writes: "How will it do to manure my garden heavily and spade it up this fall?—I bought a small calladium bulb this spring, and planted it. Will it be good for another year? When should the bulbs be taken up, and how treated?"

REPLY BY JOSEPH:—Manuring and spading or plowing the garden in the fall is all right, but it should be deeply worked again in the spring.—Calladium bulbs should have the leaves removed soon after the frost has injured the foliage. A few days afterwards carefully lift the bulbs, dry, and store them in sand in a dry, cool cellar, or underneath the greenhouse bench. Plant again at the beginning of warm weather in spring.

Kentucky Blue-grass.—T. A. F., Mound City, Ill., writes: "When is the best time to sow blue-grass seed?"

REPLY:—Kentucky blue-grass seed may be sown in the fall, on wheat or rye, or early in the spring. If sown alone, use two or three bushels of seed per acre. It takes two or three years for it to make a good sod, as it makes a slow growth at the start. It is not suited to a short system of crop rotation, but for permanent pasture you will not find anything better. Keep your stock off of it until it seeds in June, the second year after sowing. Do not graze it too closely at any time, particularly in the fall. If sown with timothy it can be mowed for hay the second year, and pastured the following years. The blue-grass will take full possession after three or four years.

Wire Farm Gate.—J. B. C., Paris, Mo. We comply with your request for a wire gate by



republishing the accompanying cut, which fully explains its construction.

Tanning Hides with the Hair On.—O. R. D., Daniels, N. D. To tan hides with the hair on for rugs or robes, first thoroughly wash the skin and remove all fleshy matter from the inner side, then clean the hair with warm water and soft soap, and rinse well. Take one fourth of a pound each of salt and ground alum and one half an ounce of borax; dissolve in hot water and add sufficient rye-meal to make a thick paste, which spread on the flesh side of the skin. Fold it lengthwise, the flesh side in, the skin being quite moist, and let it remain for ten or fifteen days in an airy and shady place, then shake out and remove the paste from the surface and wash and dry. For a heavy skin, a second application of the paste may be made. Afterward, pull and stretch the skin with the hands or over a beam, and work on the flesh side with a blunt knife.

Books Wanted.—A. S., Goldenville, Pa., writes: "Where can I procure books which treat on the following subjects? (1) Dynamite, how handled, how used, etc? (2) Dwelling-houses, showing framework, plans, etc. (3) Plans and specifications of home-made incubators and brooders. (4) Where can I procure dynamite, caps, fuse, etc., at wholesale prices? (5) What kind of oil is used to oil muslin to serve as glass?"

REPLY:—(1) The descriptive circulars sent out by the manufacturers, tell how to handle and use dynamite. (2) Artistic Dwellings—views, and floor plans of convenient and economical houses, cottages, stables, barns, etc., for sale at this office. Price \$1, including one year's subscription to FARM AND FIRESIDE or LADIES HOME COMPANION. (3) For plans of home-made incubators send two two-cent stamps to P. H. Jacobs, Hammon, N. J. (4) Ajax Dynamite Works, Bay City, Michigan. (5) Linseed oil.

Value of Pine Ashes—Slaughter-house Refuse.—L. G. B., Lead City (no state), writes: "What is the fertilizing value of pine ashes, as compared with fresh horse manure? Would the refuse from a slaughter-house, such as hog and cow manure, blood, etc., be fit, when well rotted, to be used as hot-bed soil; or would it be better to mix it with loam, decayed wood, leaves, etc?"

REPLY BY JOSEPH:—Fresh pine ashes have about 1½ per cent of phosphoric acid and 5 per cent of potash, being worth for fertilizing purposes about \$3 to \$10 per ton, and considerably less after rains, etc., have leached part of these plant foods out of them. Fresh horse manure has about ¼ per cent of phosphoric acid, ½ per cent of nitrogen and ½ per cent of potash, being worth about \$2 per ton. Slaughter-house refuse, consisting of hog and cattle droppings, blood, etc., will make a very rich manure. I would not use it unmixed for hot-bed soil, but only sparingly, when well rotted, as an addition to good loam, preferably rich, sandy muck, for the purpose named.

Rhubarb Species and Varieties.—W. T. B., Bay View, Wis., writes: "Where did rhubarb, or pie-plant originate? Is it related to the rhubarb used for medicine? What variety is best for forcing? How many varieties are there in cultivation?"

REPLY BY JOSEPH:—The rhubarb commonly found in cultivation under the name of "pie-plant," is the *Rheum Rapastrum* of the botanist. Sometimes it is called English rhubarb, and is a native of southern Siberia, known to

have been cultivated early in the seventeenth century at Padua, whence it was brought to England, the first plant being grown there about the year 1628. It is also grown for medicinal purposes. The real source of the Russian, or Turkey rhubarb, however, is *Rheum palmatum*, first found wild in 1872-3 in China. Another species furnishing commercial rhubarb is *Rheum officinale*, also a native of China. There are many garden varieties of *R. Rapastrum*, as plants from seed show a great deal of variation. Linnaeus, being early, is especially valuable for forcing; Victoria, being large, is good for outdoor culture.

Potash for Strawberries and Grub.—Novice, Winsboro, La., writes: "How much nitrate of potash to the acre may be used without injury to the soil? Is it true that an abundant application of it will destroy white grubs? If so, at what season of the year should it be applied? If this will not destroy them, how can it be done? These questions refer to ground set with strawberries."

REPLY BY JOSEPH:—Probably you mean muriate or sulphate of potash. Nitrate of potash (ordinarily called saltpeter) is hardly ever available for fertilizing purposes, it being quite expensive. Whenever it can be had, of course, it makes a most powerful fertilizer, being almost as rich in nitrogen as nitrate of soda, and almost as rich in potash as muriate of potash. Strawberry plants can stand quite heavy applications of potash salts without injury. I do not believe that a ton of kainit or half a ton of muriate or sulphate of potash would kill the plants. Still, I am unable to say to what extent we can safely go in the application of these substances. Whether moderate applications, such alone as could be recommended, will kill grubs, is yet the question. I rather doubt it.

VETERINARY.

Conducted by Dr. H. J. Detmers.
Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to Dr. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Sore All Over.—J. H. J., Totten, Ark.—Give your mule rest, and bestow good care on the same. It seems you have galled and overworked the animal.

Dropped Her Colt.—F. W. M., Broken Bow, Neb. The best thing you can do is not to breed your mare until next spring, after she has been in the pasture about two weeks.

Wintering Colts.—J. M., Sumner, Mo. Plenty of good, sound and nutritious food (good oats particularly), good care in general, clean and pure water to drink, and good and clean shelter against the inclemencies of a Missouri winter.

Bone-spavin.—B. T. D., Bazine, Kan. If your horse is afflicted with spavin, please consult FARM AND FIRESIDE of November 15th. The veterinary editor does not deal in spavin cures, nor in any other cures, and therefore has none for sale.

Want of Exercise.—T. M., Media, Penn. Your pigs suffer for want of exercise, and possibly also from constipation. If you are so situated that you can do it, let them run out, even if it is only in a yard. Exercise will also remove the constipation.

Smutty Wheat.—O. B. L., Coldwater, Kan., writes: "I would like to know if smutty wheat is dangerous to feed mares in foal."

ANSWER:—Neither smutty wheat nor any other smutty grain can be considered as suitable food for horses or any other animal. If fed in considerable quantities it is dangerous.

Acts Like Having Earache.—J. W. T., Tecumseh, Okla., writes: "I have a mule which acts like it has the earache. It is troubled with it more when it has the bridle on than any other time. I never saw anything suffer like it does at times."

ANSWER:—Please make an examination of the ears and of the poll of your mule, ascertain where the seat of the pain is, and what is wrong, and then report again.

Probably a Tumor.—J. A. W., Stanard's Corners, N. Y. I do not know what you call a wen. What you complain of may be a tumor; it may be neither more nor less than an enlarged thyroid gland—in other words, a case of goitre. Or, possibly it may be an inflammatory swelling or an incipient abscess. My advice, therefore, to you is to call in a veterinarian and have the enlargement examined and properly treated in accordance with the result of his examination.

An Ugly Scar.—M. L. H., Mansfield, Mo. Such a scar as you describe, if already three years old, cannot be removed except by cutting it out; but when, as in your case, the scar is on the outside of the hock-joint, and especially if there is at the same time an enlargement of the size of a man's hand, and this enlargement, very likely (to a certain extent at least) due to a degeneration of the periosteum, or possibly of the bones themselves, even such an heroic treatment is out of the question.

Wants to Feed Apples.—R. L. A., Cray's Mills, N. Y., writes: "I wish to ask you if there is any good in feeding apples to horses. I have a number of bushels and have been feeding them. Some tell me they are not good for horses."

ANSWER:—If your apples are sound and good it surely is more advisable and more profitable to sell them or to convert them into cider, and if they are partially rotten, wormy or decayed, they certainly are not proper food for horses. A few good apples now and then given to a horse can do no harm.

Luxation of the Patella.—W. E. C., Miami, Mo., and J. B., Sturgis, Mich. Your colts suffer from chronic luxation of the patella, or kneecap. The latter slips out and gets hooked on the femur when the colts are getting up; hence, to keep it in place, the animals so affected must not be allowed to lie down until the relaxed ligaments have become sufficiently contracted and strengthened to keep the patella in place. This may be effected, unless the case is too inveterate, by applying, say once every four days, a good blister on the sides of the joint. As such a blister or counter-irritant, oil of cantharides, prepared by heating one part of cantharides and four parts of oil for an hour in a water bath (it is best prepared by a druggist) will answer.

Badly Contracted Hoof.—D. M. S., Wampum, Penn. If you are sure that your horse is free from navicular disease—I must say I suspect that he is not—either again resort to the old method of shoeing employed by you last

winter and last spring, or else have a so-called slipper-shoe put on—one that covers only the toe and half of the sides, but does not cover the quarters, and then give your horse plenty of exercise. But stop the stopping with cow dung; the necessary moisture and subsequent elasticity of hoof and frog must come from within, and not from without. If your horse-shoer is acquainted with it, you may tell him, if you prefer it, to apply DeKay's method, and spread the hoof a trifle every two weeks.

Lame.—A. J. M., Dekorra, Wis., writes: "I have a six-year-old horse that got lame in his right fore leg two weeks ago. It is not swollen, and I cannot find any sore spot. He rests his foot on his toe, and drags it when he steps. His hair sticks up, and he is running down with good care."

ANSWER:—If your horse drags the lame foot when caused to move either forward or backward—that is, don't lift the foot from the ground—the seat of the lameness, very likely, is in the shoulder. I would advise you to have the animal examined by a competent person, familiar with the anatomy of the horse and the mechanism of a horse's leg. A treatment can be prescribed only when the seat and the nature of the lameness are known.

Induration.—R. H. G., Bryan, Ohio, writes: "I have a cow that has a hard lump on her bag at the base of one teat. I first noticed it about the first of September, when she came in fresh. It seems to be getting larger, but does not seem to be at all sore. What is the cause of it, and does it make the milk unwholesome?"

ANSWER:—If the "hard lump" does not cause any trouble it will be best to leave it alone, and see to it that the cow is regularly milked, and that the milk at every milking is drawn out. If the cow is otherwise healthy—not affected with tuberculosis—and if the "hard lump" is simply the result of a mild case of garget, the milk cannot be considered unwholesome.

Intestinal Catarrh.—P. S. McC., Stout's, Ohio. Your colt suffers from (chronic) intestinal catarrh. Keep him in the stable and feed the very best of hay and oats in moderate quantities. If the disease is of long standing, the prognosis is somewhat doubtful. As to medicines, astringents, as a rule, only have a temporary effect. Permanent cures have been effected by giving, twice a day, a little carbolio acid or oil of turpentine in the water for drinking; say two to three drams in a bucketful. Besides that, some tonics, such as gentian root, oak bark, or even nux vomica, if given repeatedly in small doses, have often a good effect. The dose of powdered nux vomica must not exceed half a dram. Each one of these tonics may be mixed with the food, but it will probably be some time before the horse voluntarily takes them.

Bog-spavin.—R. R. J., Centralia, Kan. What you describe is a bog-spavin, or, in other words, an abnormal or morbid enlargement of the capsular ligament of the hock-joint. It exceedingly seldom causes any lameness, and is very apt to return on slight provocation after one has succeeded in removing it. Therefore, it is usually just as well to leave it alone, as to make all kinds of applications. The best remedy, probably, is to bandage the leg twice a day in such a way as to produce moderate pressure upon the enlargement. This can easily be done by covering the bog-spavin, before the bandage reaches it, with a bunch of cotton, in such a way that the bandage will cover it, and keep it in place. If this treatment is too much trouble, tincture of iodine, or some astringent decoction may be applied once or twice a day.

Attacks of Colic.—O. N. J., Lometa, Texas, writes: "I have a mare in her ninth year that has never been used much. She has got thin in flesh. She has had two or three sick spells lately."

ANSWER:—The disease is colic, but what to do when an attack is on, except to make the animal as comfortable as possible in a place with plenty of bedding, where the same cannot injure itself, I cannot tell you because your inquiry does not convey any information indicating the nature or the possible cause of the attacks. If the attacks are of frequent occurrence, it is possible that the same are due to the presence of an aneurism in the anterior mesenteric artery, which, of course, once existing, cannot be removed by any means of our disposal. The best prevention, as far as a prevention is possible, consists in strict regularity in feeding and exercising.

Sore Withers.—M. C. H., Robinson, Kan. To successfully treat fistules and sore withers, etc., requires good judgment and strict and untiring attention. Besides that, one must be familiar not only with the principles of surgery, but also with the anatomy of the parts affected. As a consequence, one who attempts from a distance to map out a treatment for cases of that kind, which he has had no opportunity to see and examine, and of which he only has a meager description, will, as a rule, do much more damage than good. If you have eleven or twelve cases in your immediate neighborhood it surely would pay you to call in a good veterinarian from Atchison, Kansas, or St. Joseph, Missouri, to examine your horses, to perform the necessary operations, and to give for each single case the proper instruction as to further treatment. At any rate, if you do this you will find it in the end much cheaper than to treat the horses yourself.

Stringhalt and Chronic Swelling.—A. W. R., Blaine, Wash., writes: "I have a horse which is a little stringhalted, and the left fetlock-joint is badly swollen. It has been about the same for the last two years. It appears hard, as if the bone was enlarged, but when he is driven for an hour or two the swelling goes away. The man I bought him of said it was caused from what we call mud fever. It does not seem to get any worse. I have not done anything for it. I would like to know what is the matter with him and what to do for him."

ANSWER:—Stringhalt and chronic swelling are two different things, which have nothing to do with each other. The first is best left alone, and as to the second, not much can be done against an old swelling of two years standing. Still, if it is reduced by exercise, a permanent reduction may yet be possible, if you exercise the animal during the day, and properly bandage the swelled parts in the evening, and keep them bandaged during the night. The bandaging must be commenced with at the hoof.

Diseased Eye.—E. J. M., Watertown, Conn., writes: "I have a horse that has a slight film over the back part of one eye. He has a streak under the eye where the hair has come out white. Please tell me what to do for the film and what will bring the hair out black around the eye."

ANSWER:—The streak or scar beneath the eye may be regarded as an indication of a former treatment against an eye disease, and consequently as an indication that the opacity, or film, is not of recent origin, but of long standing. If the same is blue, there may yet be a possibility of at least partially removing it. If it is white or yellow, it is permanent. If it is blue, you may apply, twice a day, by means of a small glass pipette capped with a

small bulb of rubber, a drop or two of an eye-water composed of nitrate of silver, two grains, and distilled water, one ounce. The druggist will show you how to handle the glass pipette if you tell him for what you want to use it.

Distemper.—R. F. E., Kittanning, Pa., writes: "My two-year-old colt swelled around the throat last spring; when I put him in the stable the swelling left. It broke under the jaw and mattered all summer; then healed up and left a mark like a wart. About one week ago his right hind leg began to swell in front of the hock. The swelling was very soft and sore to the touch. Now his front legs are swollen the same way. He has a good appetite."

ANSWER:—Your colt was affected with horse-distemper, an infectious pyæmic disease. Whether the swelling in the hind leg has anything to do with it or not, cannot be decided upon the information given in your inquiry. If the abscess beneath the jaw has not yet healed it is possible that some connection exists; or, in other words, that so-called metastatic abscesses are forming in the hind legs. It will be best to have the colt examined by a veterinarian, who, if he finds abscess formations, will open the abscesses at the right place and prescribe the necessary treatment.

Eye Wounded.—E. M. Y., Bloomington, Ind., writes: "I had a two-year-old mare gored in the ball of the right eye. I have bathed it three times a day with tepid water and salt also, and made an application under the lid of borax-water. The first two or three days the eye contained a great deal of fever, and there was a heavy flow of matter. It is now normal as to temperature and exudes but little matter. The wound is plainly visible, being about three sixteenths or one fourth of an inch in diameter. It is covered with a heavy film of matter, as is three quarters of the entire eyeball. She can see with the injured eye yet. Is she in danger of losing her sight?"

ANSWER:—Not knowing what part or parts in the interior of the eye-ball have been injured, and not even knowing whether the wound is in the cornea (the transparent part) or the sclerotic (the opaque, horny membrane), because your communication does not contain any statement in relation to the exact place and the parts that have been injured, I cannot answer your question. The outcome also depends upon the extent of the suppuration. It will be best, under all circumstances, to have the animal treated by a competent veterinarian. If this is not convenient you may restrict your treatment to keeping the eye clean by washing it, whenever necessary, with clean warm water, in which a little morphine, say about one grain to every ounce of water, has been dissolved, and then keeping the eye bandaged so that too much light may not irritate it. The scar cannot be removed.

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THIS
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Our Fireside.

FATHER AND SON.

"I must look to the sheep in the fold,
See that the cattle are fed and warm,
So, Jack, tell mother to wrap you well,
You may go with me over the farm.
Though the snow is deep and the weather cold,
You are not a baby at six years old."

Two feet of snow on the hillside lay,
But the sky was as blue as June;
And father and son came laughing home
When dinner was ready at noon—
Knocking the snow from their weary feet,
Rosy and hungry and longing to eat.

"The snow was so deep," the farmer said,
"That I feared I could scarce get through,"
The mother turned with a pleasant smile—
"Then what could a little lad do?"
"I trod in my father's steps," said Jack;
"Wherever he went I kept his track."

The mother looked in the father's face,
And a solemn thought was there;
The words had gone like a lightning flash,
To the seat of a nobler care:
"If he treads in my steps, then day by day
How carefully I must choose my way!"

"For the child will do as the father does,
And the track that I leave behind,
If it be firm, and clear, and straight,
The feet of my son will find.
He will tread in his father's steps and say,
'I'm right, for this was my father's way.'"

Oh! fathers leading in life's hard road,
Be sure of the steps you take;
Then the sons you love, when gray-haired men,
Will tread in them still for your sake.
When gray-haired men to their sons will say,
"We tread in our father's steps to-day."

HIS SISTER'S LOVER.

BY JAMES OTIS.

CHAPTER I. SMOKING-ROOM GOSSIP.

The writers of alleged funny paragraphs, and the newspaper fledgling who wishes to appear a hardened man-of-the-world, as he pens the articles which he fancies the entire community is looking forward to eagerly, always represents woman as the sole and only monger of gossip.

There is no particular reason why the cudgels should be taken up in defence of the fair sex as against this slander, for one has only to "drop in" at a social gathering of the sterner sex in order to understand that man can, and does, roll the unripe persimmon of gossip like "a sweet morsel under his tongue."

As for example:

The smoking-room of the steamer Adriatic, four days out from Liverpool, bound for New York.

Time: September.

Hour: A few moments after the order has been given to "turn out the lights," and immediately following the departure of the steward who has just brought a second brewing of punch intended as a "night-cap," to be drank by the feeble illumination of one small, bulk-head lamp.

"Has any one seen Clark Ogden this evening?" a voice from out the semi-obscure asks, and the answer comes from the opposite corner of the room, the words sounding gruff and indistinct, as if worn by their passage through the dense clouds of tobacco smoke:

"He was in his room, lying down, an hour ago. If the green-eyed monster had such a hold of me I'd leave my country for my country's good, and seek a lodge in some vast wilderness where my fellow man would not have an opportunity to see what a fool I could make of myself."

"That's where you expose your ignorance, my dear boy. Never having had a really serious affair of the heart you are not competent to act either as judge or critic in this case. Clark was hit hard more than a year ago, and time, instead of healing the wound, seems to have made it deeper. It so chances that I have seen a good deal of Ruth Clayton during the past year, and honestly believe Ogden would have carried off the prize if Winfield Laurie hadn't stepped on the stage at the proper moment."

"Where did she meet him?"

"At Christiania, in Norway; the place above all others where a good-looking, entertaining fellow like Laurie would be best appreciated by a romantically-inclined young lady. It was a case of coming, seeing and conquering, with a frightfully bad and long storm as an assistant in the love-making."

"But where was Ogden all the while?"

"A maiden aunt of his was so inconsiderate and selfish as to be taken sick at this inopportune time, and telegraphed him to join her in Paris at once. Ogden would have settled matters then and there; but the steamer sailed half an hour after the telegram arrived, and a fellow can't very well combine the business of making love with that of trying to pack a dozen shirts into a satchel which should not be required to carry more than two."

"Well, what happened then?"

"Oh, the same old story. Laurie had the advantage of Ogden in the fact that he could speak Norwegian, and, as a matter of course, immediately assumed the position of Ruth Clayton's guide. He coaxed her mother to

extend the journey so they might visit the Lapps, and it proved, thanks again to the weather, to be a fortnight's trip. Clark came back while they were away, and at once followed; but the fates decreed he should continue in pursuit from Hammerfest to Christiansund anywhere from twenty-four to thirty-six hours behind, without getting a glimpse of his lady-love. At the last named place he took the steamer for Aberdeen, where he had an engagement which could not be set aside."

"Did he give up the hunt?"

"Not a bit of it. He met her again in Paris; but it was too late. Whether she was actually engaged to Laurie by this time I can't say; but it looked uncommonly like it. At all events, Ogden was out of the race, distanced at the half-mile post, and any one could see the other fellow had won, hands down."

"I never heard affairs were so nearly settled; supposed it to be still a case of spoons, with the lady waiting for another glimpse of 'her own, her native land' before giving a decisive answer."

"I think the idea is to announce the engagement as soon as they reach home; the old lady might as well have told me so."

"There's no question but that Miss Clayton is up to her ears in love with the yellow-mustached fellow, and I can't say she shows bad taste. If I was a woman, Laurie is exactly the sort of a man I should fancy; but I wouldn't wear my heart quite so boldly on my sleeve as she does."

also secured a cabin on the same craft. Ogden, not wishing to travel with them, waited for this vessel. Now observe the irony of fate! Miss Ruth's mother having been taken ill the day before the City of Paris sailed, couldn't think of venturing on an ocean voyage under those conditions, and the party waited until she recovered, which chanced to be in time for this steamer. Laurie engages cabins without thinking to examine the passenger list. Ogden comes on board the night before we sailed, and went directly to his room where he could nurse his bruised heart in secret. It was not until lunch time, when we were at sea, that he made his appearance, and then the steward had given him a seat directly opposite Ruth's party. Imagine the scene! There should have been plenty of red fire and slow music to a contretemps like that!"

"What was done?"

"Exactly that which was proper, as a matter of course. Mrs. Clayton bowed and smiled. Miss Clayton bowed and smiled. Mr. Laurie bowed and did not smile. He was guilty of the very bad trick of biting the ends of his mustache while at the table, and I could see he had just been seized with the same complaint which has troubled Ogden since the moment he started for Hammerfest."

"Must have been a pleasant meal."

"At our end of the table it was, if one likes that sort of thing. Laurie hardly opened his mouth even to put in food; but watched his fiancée as a cat watches a mouse. Miss Clayton, fearing lest there should be an awkward

of honor, bring the lady into such notoriety."

"It may be; but I have lived twenty years longer in this world than you; and appreciate the fact that love levels everything, therefore it can easily bring two jealous lovers on a plane with the brutes. I have watched the young gentlemen quite attentively, and shouldn't be surprised at anything which might come out of it."

"In that case Laurie would be making an ass of himself, for any one with even half an eye can see Miss Clayton thinks this world contains no other man than he."

"Very true, my unsophisticated friend; but if it be a fact that love is blind, then jealousy is deficient in all the senses. Of what avail is it to reason with a man suffering from such a complaint? He listens, is convinced for the moment, and straightway is plunged into a fever if the object of his passion gives a side-long glance, although she may only be watching lest a bug crawl on her skirts."

"You are so well informed on the subject one could almost swear you had had experience."

"I have observed my friends while they were in that condition, exactly as I would watch the vagaries of an insane person, for the two diseases are very nearly akin. I think we have discussed this matter at sufficient length, and since the bowl is empty, suppose we go below?"

"First tell me if there is any question of money in this affair?"

"By no manner of means. Both the young gentlemen have plenty of this world's goods, and Miss Clayton has a snug little dot which her worldly-wise father deposited for her in such a way that she can never touch the principal. The old gentleman, something of a speculator, believed in providing against a rainy day. The only colors which may be used in making the picture are a lovely rose and a jealous green laid on very heavily. Now keep your eyes open during the remainder of the voyage, and you can see for yourself without keeping me out of my birth considerably more than half the night answering questions."

The elder gossip rose to his feet, stretched and yawned like one who has wearied himself with much talking, and his younger companion prepared to accompany him below.

The night was what would have been called a "perfect one" at sea.

The moon rode directly overhead, throwing great floods of liquid silver upon the placid ocean, whose pulsations caused the huge vessel to roll lazily to and fro, while every rope and spar stood out like lines of ebony against the intense blue of the cloudless sky.

The deck was deserted save for a solitary sailor forward, and the canvas stretched to shelter the watchers on the bridge against any over-bold wave, hid the officers from view.

The gossipers walked slowly aft to the saloon companion-way, the elder stepping back a few paces as he saw a gentleman ascending.

"Good evening, Mr. Ogden. Are you coming to drink your fill of this picture of the sea?"

"I thought a turn on deck might cure a headache," was the curt reply, and Clark Ogden went forward, his footsteps sounding distinctly above the throbbing of the laboring engines.

"If he had said heart instead, I'd give him the credit of telling the truth," the elder man whispered. "The best thing he can do is to dismiss the pretty Ruth from his mind, and go to sleep like a sensible fellow."

"Perhaps it wouldn't be such a simple matter."

"Nonsense, my boy. Every man should have within himself something which will act as a charm against that kind of madness. I'll admit I was in a similar condition once; but I cured the patient in short order."

"How?"

"Found a prettier girl, and made violent love to her until I had wiped out the image of the other. It was a trifle hard at first, but finally brought the desired result."

Having thus given his companion such advice as he believed would at some future time be needed, the gentleman went to his own cabin where, until his eyes were closed in slumber, he could hear the nervous footfalls as Clark Ogden paced to and fro striving to release himself from the silken chains he had helped to weave.

CHAPTER II.

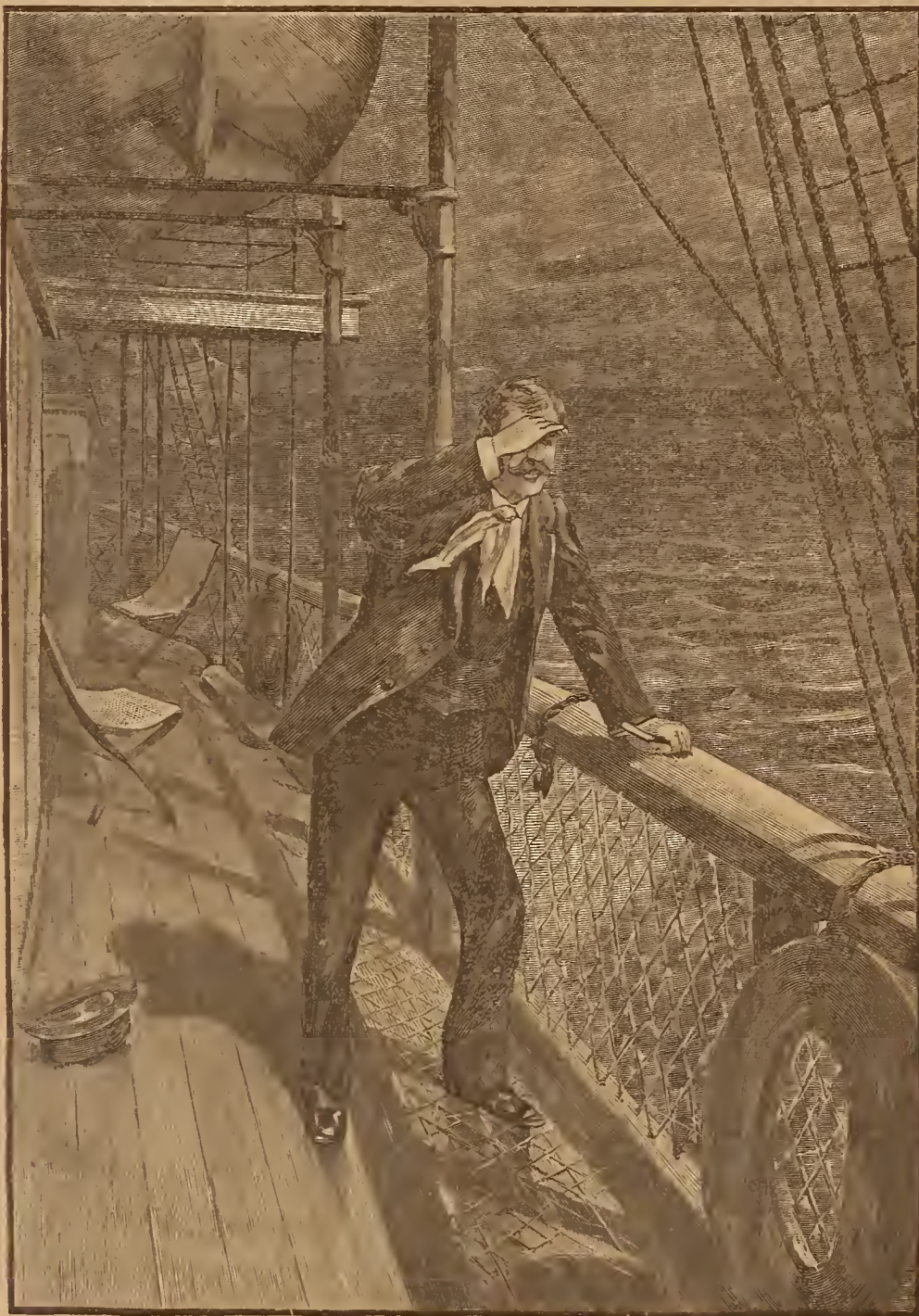
WAS IT A CRIME?

If exercise is a panacea for an overburdened heart, Clark Ogden was taking the remedy in large doses.

He paced the quarter-deck hurriedly as if pursued by phantoms of the past, his footsteps sounding so sharp and distinct that the lookout man muttered to himself as he filled one side of his mouth with a huge piece of tobacco:

"I wish that 'ere bloomin' cabin swell would turn in an' not try to walk over. It sorter makes the cold chills creep down my backbone to hear the blessed clatter, clatter like a green hand tryin' for to jig out a hornpipe."

The "cabin swell" did not hear this remark, as a matter of course, and it is extremely doubtful if it would have had any effect upon



STANDING WITH HIS HAND SHADING HIS EYES.

"That also is a matter of opinion, my dear boy. As I said before, you haven't had experience enough to qualify you for the position of either judge or critic."

"It seems to make you happy, reminding me of my youth. I believe it's because you'd like to change with me in the question of age."

"Why shouldn't I? Who would care to be known as not less than fifty if he could have a good twenty years rolled backward?"

"Tell me how it happened these three people came over on the same steamer? Had I been in Ogden's place I would have kept as far from her as possible."

"So would he, I fancy, if he'd had any voice in the matter; but if you propose to keep up this cross-questioning all night, the proper caper is to order another bowl of punch."

When this suggestion was acted upon, and the steward had discreetly retired, the elder gossip lighted a fresh cigar as he continued:

"Now it so chances that I am in a position to give positive information as to why our ill-matched trio happened to be returning on this steamer. Mrs. Clayton and daughter were booked for the City of Paris, and Laurie had

pause which would draw the attention of the passengers to the position of affairs, chattered like a magpie upon anything and everything, until a stranger would have said she was nothing more than a human phonograph. The mother, not exactly understanding the situation, instead of aiding the daughter, conversed with the captain, while Ogden alternately glared at Laurie, and answered whenever she gave him an opportunity to do so. It was a very jolly breakfast party, I assure you."

"Why didn't Ogden change his seat after that?"

"It would have been exceedingly bad form in the first place, and then again I rather fancy he enjoyed, after the first sensation of awkwardness had passed, seeing Laurie fume. It is a fact that he has taken advantage of every opportunity to join the Clayton party, particularly when his rival was near, and I, for one, wouldn't be surprised if something serious happened before this ship reaches port."

"Nonsense, old man. They are both gentlemen, and couldn't in decency, to say nothing

his midnight promenade had the words been spoken in his ear.

He was thinking of what that illness of his aunt's, which was really of no account, had cost him.

The thought was constantly in his mind that but for the unfortunate departure from Christiania, he might now occupy the position of accepted lover to the girl whose image was graven on his heart so deeply he did not believe time could ever efface it.

The most sensible thing he could have done under all the circumstances would have been to follow such advice as was given by the elder gossip in the smoking-room, and, perhaps, that might have been possible but for the unlucky chance which sent him on board the same steamer with Ruth Clayton.

It is true he had seized every opportunity to converse with her; but it had not been done to annoy Laurie.

The one and only idea was to be near her, hear her speak to him, and, now and then, catch a glance of the brown eyes which he once fancied had looked upon him in love.

That this was a fatal mistake he now realized; but it was not only too late, but impossible to draw back.

Having allowed himself to indulge in such dangerous pleasure, he was too weak to resist the continued temptation. Besides, he weakly argued to himself, it would be noticeable to all, and might attract attention, as well as unpleasant remarks, if he should suddenly keep aloof from her society.

Thus far during the voyage he had lived in a fool's paradise by day, and spent the nights repenting his folly, for the time was rapidly coming when he would see her no more.

Now he was struggling with himself, arguing that it was unmanly thus to give a hopeless passion full sway, and striving earnestly to beat down the love which had already gained the mastery.

Clark Ogden was not prone to sentiment, as a rule, neither was he weak, but this affection came upon him so gradually; he had been so long in her society without a possible rival that it seemed a part of his very self.

Had he been left alone he probably might have arrived at some satisfactory conclusion in his mind as to his future course of action; but the same unkind fate which had pursued him so long, directed a different ending to the affair.

The air was warm and balmy. In the cabins the heat was uncomfortable after midnight, and, unable to sleep because of a jealousy which had no grounds for existence, Winfield Laurie determined to seek the cooling breezes it was natural to suppose might be found on deck.

That evening Ruth had left him without a word expressive of affection, and this disturbed him very much.

He could not, or would not, remember that she was the center of a group of ladies at the moment when the steward came to say her mother wished to see her, and it was impossible to exchange a word in private with her lover.

Therefore, unhappy without reason, he ascended the stairs, selecting the starboard side of the ship for his promenade.

Not until half the length of the deck had been traversed was he aware that another was also indulging in a moonlight stroll, and then he came face to face with Clark Ogden.

Involuntarily the two men paused an instant, and then moved on without exchanging a word of salutation.

Twice did the rivals pass each other, when the same idea occurred to both at the precise moment.

It would be more pleasant to avoid these encounters, and they crossed to the port side, one, while he was aft, and the other, when the view of the stern was shut off by the deck-houses.

Thus it was that the two met again amidships, and this meeting was more disagreeable than the first, for it seemed as if each had copied the other's movements maliciously.

Laurie stopped abruptly, looking after his unfortunate rival to see which side of the deck he would now choose, and, noticing that Ogden was doing the same thing, he crossed to starboard with no slight degree of ostentation.

After this was done, and he had overcome his groundless jealousy by exercise, the accepted lover began to feel a certain sense of sympathy for the man whom he had supplanted.

"I am worse than a fool to doubt the dear girl," he said to himself, "and Ogden is to be pitied rather than shunned. I can fancy my own frame of mind if the positions were reversed."

Under the influence of thoughts like these he soon became rational, almost tender-hearted, and recrossed the deck to speak with his fellow-passenger.

Ogden was forced to halt when Laurie came up, for the latter had stopped directly in front of him as he said, while extending his hand:

"I see no reason why we should not be friends, as at Christiania before we were forced to leave, and yet it would seem as if each thought he had personal cause for complaint against the other."

"That may be true," was the curt reply, and Ogden would have gone on without paying any attention to the extended hand, had Laurie not barred the passage.

"Don't let us have any further misunderstanding," the latter said. "You know all is fair in love or war; if I have won the prize, as I

hope, it shouldn't affect our feelings toward each other, and I assure you, Mr. Ogden, there can be none but the kindest thoughts on my part toward you."

"It matters very little to me what may be your attitude in regard to me. I regret to say that it is impossible for me ever to consider you even as an acquaintance after my knowledge of your peculiar methods."

"I do not understand you."

"I fancy you do not choose to."

"Explain yourself, sir!" Laurie cried in a voice trembling with passion. "I am not accustomed to bearing an insult calmly."

"One like you should practice it, if he lays himself open to objectionable remarks from honest men."

"By God, sir! you must say more or take back the words already spoken!" and Laurie stepped closer to his former rival. "Explain your meaning!"

"That can be done in a very few words, and there is no reason why I should not, although it must be understood that I do so because it pleases me, and not on account of your implied threat."

"I do not care *why* you speak, so that I hear," and Laurie tugged nervously at his mustache as he tried in vain to appear calm.

"We will step back here where those on the bridge cannot hear the conversation, for it must be a private subject between only you and myself," Ogden said with a ceremonious bow, as he moved aft where they could be screened from the view of those forward; but bad any one come from the cabin companion-way the two men would have been plainly revealed in the moonlight.

Not a sound could be heard from the after portion of the ship, save the churning of the screw as it threshed the green waters into foam.

They were apparently as much alone as in a desert.

"Will you kindly make haste, sir?" Laurie asked hoarsely as, with an air of indifference and coolness, Ogden leaped to a seat on the rail.

"We have plenty of time, and, besides, it is a whim of mine to prolong this interview, for I have an odd idea it will be our last."

"Of that you may rest assured after the insinuations, sir."

"I have not insinuated, but spoken plain facts. You knew in Christiania that I had been paying attentions to Miss Clayton for nearly a year; but yet the moment I was forced to leave in order to visit a sick relative, you, like a cur, did all you could to poison her mind against me. I have no doubt but that you lied—"

Laurie's temper overpowered him.

He no longer thought of anything save to force a retraction of the words by brute strength, and seized Ogden by the throat, leaping to the rail beside him in order to effect his purpose.

"You shall beg my pardon for that insult, or I will leave my imprint on your villainous face!" he cried savagely.

Taken by surprise, Ogden was not able to guard against the unexpected attack, and threw out his arms, wildly clutching for support.

"Say that you are a liar and a coward or I'll choke the breath from your worthless body!" Laurie cried, so beside himself with rage as to be less the man and more the brute.

Ogden could not have spoken if he would.

His adversary had bent him backward until he was hanging over the rail powerless to aid himself.

At that moment, when Laurie was hardly conscious of what he did, the steamer rolled more suddenly than usual to port, and at the same instant Ogden made a violent effort to raise himself.

Down into the green wave the rail was dipped until both the combatants were beneath the surface, and, exerting all his strength, Laurie leaped inboard as he loosened his hold of the other's throat.

The involuntary bath had the effect of bringing Ruth's lover to his senses, and he was already ashamed of having allowed the animal portion of his nature to gain the ascendancy, when he looked around for the man who had so needlessly and wrongfully insulted him.

No one was to be seen.

The long length of rail was ominously bare. A feeling of sickening horror came over Laurie as he ran to the rail and gazed back upon the mirror-like waters.

The surface was unbroken save where the long line of foam marked the steamer's course, and in those milky waves a human being was probably struggling for life.

The terrible, awful fact that he had, perhaps, committed a crime, deprived Laurie of his self-possession.

The only thought in his mind was to throw something which might aid the unfortunate man, and with his pocket-knife he cut and hacked at the lashings of a life-preserver, while the precious seconds were passing rapidly.

The task was accomplished, although it seemed to the horror-stricken man as if an hour had elapsed before the huge ring of cork and canvas had been launched over the rail.

Then, standing with his hand shading his eyes against the blinding light of the moon, he gazed with feverish intensity at the waste of waters.

"My God! Did I throw him over?" he asked with trembling lips, and the steamer's speed



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R. 4.

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was not checked, because no alarm was given by he who should have been the first to announce the terrible fact.

Bewildered to the verge of stupefaction, Laurie remained by the rail while one might have counted twenty, and then, mechanically turning, he stood face to face with Ruth Clayton, who appeared to his fevered imagination like some accusing spirit.

(To be continued.)

ON THE VERGE OF THE UNKNOWN.

Mr. W. H. Preece, chief engineer and electrician to the post-office, has put up a wire a mile long on the coast near Lavernock, and a shorter wire on Flatholm, a little island three miles off in the Bristol channel. He fitted the latter wire with a "sounder" to receive messages, and sent a message through the former from a powerful telephonic generator. That message on the mainland was distinctly heard on the island, though nothing connected the two, or, in other words, the possibility of a telephone between places unconnected by wire was conclusively established. There is a possibility, here of inter-planetary communication, a good deal more worthy attention than any scheme for making gigantic electric flashes. We do not know if we can communicate by telephone through the ether to New York or Melbourne, with or without cables, but we do know that, if we cannot, the fault is in our generators and sounders, and not in any prohibitory natural law.

Will our habitual readers hear with us for a moment as we wander into another, and, as many of them will think, a supra-sensual region? The thought in a man's brain which causes him to advance his foot must move something in doing it, or how could it be transmitted down that five or six feet of distance? If it moves a physical something, internal to the body, why should it not move also something external, a wave, as we all agree to call it, which on another mind prepared to receive it—fitted with a sounder, in fact—will make an impact having all the effect in the conveyance of suggestion, or even of facts, of the audibility of words? Why, in fact, if one wire can talk to another without connection, save through ether, should not mind talk to mind without any "wire" at all? None of us understand accurately, or even as yet approximately, what the conditions are; but many of us know for certain that they have occasionally, and by what we call accident, been present to particular individuals, and that when present the communication is completed without cables, and mind speaks to mind independently of any machinery not existing within itself.

Why, in the name of science, is that more of a "miracle," that is, an occurrence prohibited by immutable law, than the transmission of Mr. Preece's message from Lavernock to Flatholm?—*Spectator*.

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Our Household.

PUMPKIN PIES.

In the kitchen fair Phyllis, one hand 'neath her chin
(Her dear little chin, with the dimple nicked in)
And a look on her face that she means to be wise,
Sits and ponders the question of making some pies.
"Let me see now," she says; "there is apple and quince,
There is peach, there is cherry, there's lemon and mince;
But I think," here a blush a sweet secret confessed,
"Of them all Colin's sure to like pumpkin the best.
And though, oh, dear me, they will be lots of bother,
I know I can make them as good as his mother!
Or, perhaps he may think mine a little the best.
How I'll smile then and say, 'Surely, Colin, you jest!' While he'll whisper, 'Tis so,' all unheard by the rest.
But before I begin, there's the pumpkin to find;
I shall be sadly misled if it's not to my mind."
So she hastens away, like the maiden of old,
To the garden, where glimmer the great globes of gold,
And selects one with care—quite as large and as mellow
As once formed the coach of the good Cinderella.
To the kitchen, then back, in delight with her prize,
And a knife for the wand of the fairy applies;
When, presto! the pumpkin is soon changed in topies.

HOW SHE DOES IT.

Cut the pumpkin in half, just as smooth as you can,
And put it to bake in a clean dripping-pan—
When the seeds are removed, with the skin side on top,
In a very slow oven. 'Twill be time to stop
When you find it will scrape from the rind with a spoon,
Like a crusty baked loaf 'twill be a nice brown soon,
Mash finely, and to one quarter of pumpkin, while hot,
Stir of butter a quarter of a pound in the pot;
Let cool, and add to it what sugar you like
(Not too much or too little, a medium strike);
Then pour a quart of milk fresh in the pan ('Tis better to let it be cream, if you can);
Then the yolks of four eggs, beaten well to be nice,
With two tablespoonfuls of ginger as spice,
One of nutmeg, too. If you wish them quite comely,
Bake in a quick oven with bottom crust only.
Of the whites of the eggs a stiff froth should now rise
To spread over the tops. Who could wish better pies?

—Adelaide Preston.

HOUSEKEEPING IN "SUNNY SAN LUIS."

The central idea of the housekeeper in San Luis valley, a plateau of the Rocky



No. 1.

mountains in southwestern Colorado, is "Multum in parvo." The houses being small, the absorbing question is, how shall I arrange the many household effects to the best advantage, and especially that as little space as possible be used. Many of the "ear-roof" ranch houses consist of but one room, and this usually suffices till the ground is "wet up" by subirrigation and a crop is raised. A great many families have

no carpet at all; others have one of gunny-sacks or burlaps, neatly sewed together and placed on an upholstery of straw.

Until within the past year it was quite a remarkable thing to see a plastered house, or one with "an up-stairs."

Building-paper is tacked onto the boards and stayed in place with strips of lath. The more painstaking, however, after mixing glue with the paste, fasten the paper directly onto the wall. Others tack cheese-cloth upon the boards, then cover with pretty wall-paper.

The ceilings are of cloth; this muslin is fastened to the joists, planed lath is tacked over the joining, and the whole calcimined with a preparation suitable for the purpose. This is done where the house consists of two or three rooms; if it has but one, little pains is taken to give a neat appearance to things.

Dry-goods packing-boxes find many uses here as tables, lounges, cupboards, wardrobes, wash-stands, etc.

The kitchen work-table is very often a large box placed half a foot from the wall, near the stove, to save space and for convenience as well. It is not placed directly against the wall because "an annex," in the form of a strong board, six inches in width and as long as the box, is fastened to the top and back of this table. Nails are placed on the back of the box, under this "annex," and here, out of sight, are the skillets, gem-pans, dish-pans and cloths, or sponges and dish-mops hung. On the floor beneath is a small box containing common tools. The table is covered on top with zinc or oil-cloth, the sides are painted, and a blue denim curtain, shired onto baling-wire, hangs in front that the contents of the two or three shelves which are placed in the box need not be seen nor the dust enter. Nothing could be more convenient than these shelves in the box. On the lower shelf are placed the heavy cooking utensils. The one above accommodates the pans, tin pails, covers, etc., while the small shelf above contains a tray for the knives, forks and spoons used in cooking, tin cups and pearline for keeping all clean.

Hooks are placed on one side of the box for large iron spoons, pie-fork, pan-cake turner, tea-strainer, skimmer, etc. On the other side hangs the bread-board and rolling-pin; they are first placed in blue denim sacks, made to fit each, and finished at the top with draw-strings. If the potato-masher be of wood, a similar sack is made for it.

To further add to the convenience of the cook, shelves are placed above the table. On the one immediately above is a jar of sugar, a ten-pound lard-bucket filled with flour, a jar of salt, box of white pepper, some rice, barley, sago and raisins. These are kept replenished from the larger supply; still is there room for baking-powder and soda. On the shelf above, tea and coffee are placed, together with the different kinds of flavoring extracts and spices necessary in preparing different kinds of food.

These shelves are covered with oil-cloth or kept white and clean by scouring with artesian water and common baking-soda. A curtain of blue calico is hung in front.

Could a more "handy" arrangement be imagined? One can bake biscuits, make pies, cakes or puddings, cook meat and vegetables and take but a few steps for all. One ingenious housekeeper, not having room in the box-table for pans and covers, has a novel arrangement in the form of a box eighteen by nine inches nailed against the wall. Three laths are nailed across the front to keep the pans from rolling out, but being so far apart, the hand can easily reach in and take what is desired. A pretty scalloped oil-cloth curtain falls over the whole. This is between table and stove.

In the corner nearest the dining-table—on this same table the dishes are usually washed—is the "home-made" cupboard for dishes. Triangular boards are fitted into the corner and secured in place by cleats. This "three-cornered cupboard" is fitted

with two doors, the one below opening into the part used for a clothes-press; in it bed-linen and table-linen are placed.

Sometimes, in lieu of another cupboard for washable clothing, a box, oblong in shape, is fitted with shelves and placed in a corner. The top is covered with pretty cretonne and a curtain of the same adorns the sides.

The beds are often made to fasten up against the wall during the day. The



No. 3.

No. 4.

woven wire springs and mattress are fitted into a box or framework, to which hinged legs are attached. Each morning all is secured firmly against the wall by hooks and staples. A curtain over the sides and scarf on top, take away the bed-like appearance.

The "sweetest" little home that I have seen in the valley consisted of but three rooms, and yet from these three five had been improvised. In one corner of the "best room" was what I supposed was a book-case, with a handsome curtain to protect the books from dust. A closed organ occupied another corner. The book-case (?) was a clothes-press; the "organ" a bed. The long, narrow dining-room divided in two rooms by a large Japanese screen. The part beyond the screen was a bedroom and closet.

ELLA BARTLETT SIMMONS.

APRONS.

A plentiful supply of aprons is an absolute necessity to the housekeeper, and a pair of sleeves to slip over the dress sleeves will also be found a great protection. But back to the aprons.

Nos. 1 and 2 are quitesuited for the young daughter who helps mamma.

No. 1 is cut in one piece. The bodice should be the width of the bust. At the waist line a piece should be faced on the wrong side, into which shirr-strings should be run. This apron can be flattened out to iron, making it a simple matter.

No. 2 can be quite a dressy affair, of either silk or mull, trimmed with bands, girdle and shoulder-straps of velvet, with epaulets of the material.

No. 3 is made of butcher's linen, and heavily embroidered in cross-stitch patterns. Around the edge is a narrow knife-plaiting of Turkey red.

No. 4 is made of black silk, with embroidered stripes between of colors worked upon heavy white flannel or cloth, the edge being finished with fringe.

PRACTICAL APRONS.—I have several different kinds. Two of unbleached muslin, one width in length, to the bottom of my dress, trimmed with two bands of Turkey red above the hem two inches wide. These are gathered into a plain baud. Another is a large, full apron of black-and-white check French gingham, the length of the dress. A cross-stitch pattern is worked above the hem. For wear while doing up the morning work, when one is apt to soil an apron more than later in the day, use navy blue goods with white polka spots or hair-stripes. Blue denim makes very serviceable aprons, but must not be starched; also the large blue-checked ticking that many people use for pillows. Calico is

simply useless both for working-aprons and working-dresses, unless bought in the qualities ranging from twelve to eighteen cents per yard.

If an old wool dress can be utilized as a working-dress, it can serve at least one season and then be dispensed with; covered with an apron it can be kept clean, and look well for a long time.

There is an old-fashioned purple calico that wears better than anything that can be bought, washes well and always looks clean. This made in a tidy manner is a very pretty dress for morning wear.

CHRISTIE IRVING

CONCERNING AGE.

"She is older than he!" was the cry raised against a prospective marriage.

There is always some objection, you know. But this is a universal prejudice. Hundreds of times we hear quoted from Shakespeare:

"Let still the woman take

An elder than herself; so wears she to him,
So sways she level in her husband's heart;
For, boy, however we do praise ourselves,
Our faculties are more giddy and unfirm,
More longing, wavering, sooner lost and won,
Than women's are."

Shakespeare himself had a wife a few years his senior, and his fancy for her became so "giddy and unfirm" that he preferred to leave her in the provinces while he lived in London. But how often has this division come between a woman and her husband who is "elder than herself!"

There are many notable instances of constant love between a man and woman with the disparity of age on what is generally considered the wrong side.

Samuel Johnson, when he was twenty-seven, married a woman twenty years older, and he said it was "a love match on both sides." He was devoted to her happiness while she lived, and twenty-six years afterwards spoke of her loss with this expression: "It almost broke my heart."

The poet Goethe, who was fickle in his love affairs, was longest held in thrall by Fran Von Stein. At the time when their friendship began he was twenty-six and she thirty-three. She was a wife, and the mother of seven or eight children. So infatuated was the young poet that he ardently wished that she might free herself by divorce. This was impracticable, so they contented themselves with a Platonic love which lasted ten years. But that, you say, is not a fair test, because they never became husband and wife. True.

A cotemporary of Goethe was at twenty-six also infatuated with a woman seven years his senior. We mean Napoleon Bonaparte and Josephine. But, "Ah," you exclaim, "they are a fine pair to show that a woman should take an elder than herself. Napoleon was giddy and unfirm in his fancies." Napoleon long loved Josephine, and with unusual passion. Read



No. 2.

his love-letters! He was, under unfortunate circumstances, prejudiced against her. His brothers poisoned his mind. But all the truth in that case we shall never know.

Coming to the generation preceding our own, we have numerous instances of happy marriages, against which, doubtless, their five hundred dear friends cried out, "She is older than he!"

Robert and Mrs. Browning were one of these, though the disparity was not great.

Disraeli and his wife were another, and although they seemed somewhat grotesque to critical observers, they found great rest and comfort in each other, which is the main thing.

John Stuart Mill loved and married a woman many years his senior. He was romantically devoted to her, and after her

pretty screen-holder, or as a stand for a flower-crock. They should be finished with some of the bronze paints. The inside of the screen can be anything you wish. A square of glass painted makes a pretty screen, as the firelight shows through.

Ladies of middle age should not wear hats. A much more refined look is given a face by a stylish little bonnet, and strings of velvet beneath the chin have a softening effect about the face. Our illustration gives a very good back effect, both for the bonnet and the hair; and really, ladies should be more careful than they are about the appearance of the back hair.

When the neck begins to have an old appearance it is best to keep it covered as much as possible. This can be done by neck bangs, where they are becoming, or a low dressing of the hair, or a veil worn on the back of the bonnet.

The bonnet in our illustration is very easy of construction, being only a plaited front, trimmed high at the back with bows of lace and airy feathers and folds of velvet.

The bonnets this winter are so easily made one can well have two or three and match the suits to wear with them. For a lady who dresses continually in dark colors, there is no bonnet so pretty as one of a rich, dark wine-red velvet. Against gray hair it is particularly becoming. Too much black is worn by middle-aged ladies. It is a trying color, and needs the flush and color and rounded outlines of a young face.

For a young lady with golden or auburn hair, nothing is so pretty as an entire black toilet. If a black bonnet is worn it should not have any color mixed with it, but combine in thick and thin material—velvet, lace and jet; the jet giving it the same sparkle as derived from color.

LOUISE LONG CHRISTIE.

No, let me die
Where the blue heaven bends o'er me lovingly
And the soft summer air,
As it goes by me, stirs my thin, white hair,
And from my forehead dries
The death-damp as it gathers, and the skies
Seem waiting to receive
My soul to their clear depths! Or let me leave
The world when 'round my bed
Wife, children, weeping friends are gathered,
And the calm voice of prayer
And holy hymning shall my soul prepare
To go and be at rest
With kindred spirits—spirits who have blessed
The human brotherhood
By labors, cares, and counsels for their good.
—John Pierpont.

THE DOMINANT TALENT.

In connection with nearly every wedding we read that the bride is the "accomplished daughter" of so and so, until the word accomplished thus used has become a hackneyed phrase of the newspapers. But in its truest sense it has a very strong meaning, and to own it rightfully is an honor, a thing much to be desired.

Now, the meaning ascribed to it by Webster is specifically, "Complete in acquirements as the result usually of training." Notice it says *complete*—not half done nor half gained, but complete, perfect. Now, to be complete, perfect in anything, requires an extra amount of effort. You know that in school the gaining of one hundred per cent in any branch meant something more than half an hour's study a day and the remainder of the time spent in pleasant social contact, in discussing the fashions or in reading the latest novel.

But I think the fault lies not so much in a lack of labor and effort as in the fact that this labor and effort are employed in too many channels. We are so anxious to know a great deal, to become learned, cultured and able to entertain, that we assume entirely too much at the same time, overtaxing the mental and physical, thus minifying their powers, until in the end we have but a smattering of this and a smattering of that—perfect in no one thing.

I will allow there have been persons who have followed several paths at the same time with evident success; but they were persons of unusual ability, just a few in a generation. And yet, if you will study the lives of most of these men and women you will find that they shone a little brighter in one direction than in all the others; in some one thing were they most proficient.

Take Sir Walter Scott, for example. It was not as a poet that he won his highest honor, but as a novelist, in which field he stood without a rival. We read of Macaulay that "his career as a statesman was brilliant, but it is as a man of letters that his name will be longest remembered." Francis Bacon is most widely influential through his brief essays.

It is best to select some one vocation, or some one study, or some one art, and then concentrate our energies and industry upon that one object until we have made it ours, and can truly call it an accomplishment.

But again, a great deal of time, strength and effort are expended upon trivialities. There are many Will Wimbles in the world; people who are always busy, but accomplish little or nothing. As in the case of this celebrated character in Addison, who spent a lifetime handling an angle-rod and hunting with a pack of hounds, so with a great many "busy" people, who could raise their station in life and become of some good to themselves, to their friends and to the world if they would apply their exertions to something of consequence.

MARGERIE NIELLE.

TRIED RECIPES.

A NEW SALAD.—One of the special desires of humanity, these days, is to find something new, and the discovery of a novelty is usually hailed with unmixed delight. Just now a salad is having quite a run. It can't be said to be absolutely new, certain epicurean individuals having indulged in it for some time; but it has not come into general use.

This salad is made of lettuce and grape-fruit. The lettuce is prepared as for ordinary salad and broken into small pieces. To one medium-sized head of Boston lettuce add the pulp of the grape-fruit. Considerable care is necessary in preparing this, and some little trouble, as the novice will speedily discover. The thick rind is taken off, the white portion very carefully taken away until the transparent pulp shows through the thin skin which incloses it. Then the fruit is divided into sections, each one of which is broken open, the seeds taken out, and the little cells containing the juice are scattered over the prepared lettuce. Whether mayonnaise or other dressing is used, is quite a matter of taste. Those who have not tried this dish will find it an appetizing and delicious addition to the Christmas dinner. — *New York Ledger.*

LEMON HONEY RECIPE.—Take eight lemons, and grate with them the rinds of four of them, the yolks of twelve eggs, one half pound butter, two pounds of pulverized sugar; beat well and boil about half an hour, stirring the mixture constantly. This I find, when cold, makes a thick syrup like honey, fully equal to that made by bees. Try it, you who are without bees, as I am, and see how it does taste. I find it really a very good substitute for real honey.

Sterling, Kan.

MRS. M. M.

THE WAY TO BOIL EGGS.—Our woman (and her household ways are the wonder and envy of her friends) says that the right way to boil eggs is not to boil them at all. First put the eggs into a wire basket with a tall handle (that saves the time and vexation of fishing them out with a spoon when cooked) then set the nest of eggs in a kettle or other vessel with cold water enough to cover the eggs—not hot water, or warm water, but cold water. Set the vessel over a brisk fire. Do not let the water boil, only just "come to a boil," and at that particular time—not before, not later—the eggs will be cooked as they should be. Remove the basket of eggs by the tall edge handle. Spread a napkin over a deep dish, lay in the eggs, and fold the four corners of the napkin over them and serve.

If these directions are followed exactly, the eggs, when broken, will roll into the cups like balls of soft jelly, nothing adhering to the shell, the entire egg thoroughly cooked and delicate and tender through and through.

BATH-ROOMS IN FARM-HOUSES.

No farm-house is complete without a bath-room, and no other house demands one so much.

A stationary stand in which to keep the bath-towels, a small stove which will heat quickly, a pin cushion and a mirror, a dish for soap, and the tub complete the necessary furniture. The cost of all is small compared with the comfort received. It is more convenient to have pipes conducting water to and from the tub, but of course this adds to the expense, yet one for conducting the water away is easily fixed. Let a pipe be joined to the tub and cellar drain;

if the bath-room is above the cellar, this can easily be done.

When men have been in the fields all day they are pretty sure to bring home some of mother earth on their feet. If they are working in the harvest field, when night comes they need a bath just as much as they need sleep. In such cases a bath-room is a paradise. In fact, not a day goes by that this part of the house does not prove itself indispensable.



POCKET FOR BRUSHES, MADE OF PAINTED SLATES.

Don't iron the bath-towels; they are better without. Fold them in the clothes-yard, and if they are perfectly dry, put them right away where they belong.

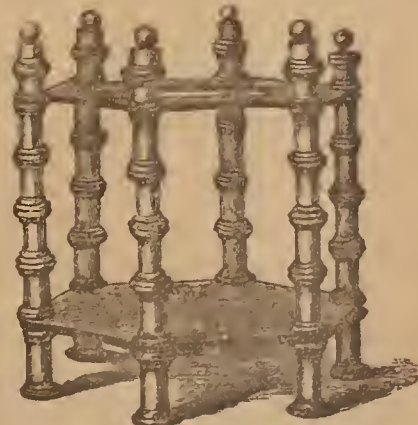
In every well-regulated farm-house, night-shirts take the place of the sweated, soiled ones. Every good housekeeper will see to this, thereby securing comfort for her family and saving labor for herself.

A gentleman who controls a large number of men, mostly foreigners, demonstrated the maxim, "Cleanliness is next to godliness," in the following: "I should rather," he says, "trust to a good bath and clean clothes for the welfare of my men on a Sunday than to a sermon." M. D. S.

ICING AND CAKE.

The white of one egg, the juice of one lemon, confectioner's 4X sugar. Beat all together and keep adding sugar until you can make a clean cut through with a knife. Then spread it on with a knife. If your cake looks rough after you have put on the icing, dip a clean knife in cold water and smooth it with that.

SPONGE-CAKE.—Twelve eggs, the weight of the eggs in sugar, the weight of one half of the eggs in flour, two tablespoonfuls of lemon juice, one fourth of a pound of butter. Add the butter and sugar to the beaten yolks, and after beating well, add the lemon juice. Beat again and add this mixture, one spoonful at a time, to the beaten whites, cutting it in very slowly with the



FLOWER-POT STAND MADE OF SPOOLS.

edge of the spoon. If you give it a quick strike or two, the cake will be moist and heavy. This is an important fact and must be remembered. When all cut together, add the flour and cut it in very slowly. Keep the whole mass light. If it seems too thin a batter, add half a pint more flour. Mix one teaspoonful of baking-powder with the flour before stirring it in with the other ingredients.

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BONNET TRIMMED WITH LACE AND FEATHERS.

death he said: "Her memory is to me a religion, and her approbation the standard by which, summing up as it does all worthiness, I endeavor to regulate my life.

Margaret Fuller married Count d'Ossili, who was several years her junior, but they did not regret it. She thus described their attachment: "My love of Ossili is pure and tender, nor has any one, except my mother or little children, loved me so genuinely as he does. He loves me from simple affinity; he loves to be with me; to serve and soothe me."

It is fair to say that none of these marriages were made hastily.

If between the marriage of souls the only impediment is an inverted disparity of age, let love be satisfied and let gossip gabble.

KATE KAUFFMAN.

CONVENIENCES ABOUT THE HOME.

Too much ornamentation about one's home is apt to give it an overloaded appearance, but little accessories in each room give it a finished appearance.

A very pretty, ornamental little affair is made of two slates, to hold brushes. These are always in the way, and look badly lying about, and are apt to gather dust, also. Get



SPOOL SCREEN-HOLDER.

the slates one a size smaller than the other, paint a few flowers on them with oil paints. Trim with ribbons, attach a pencil so that the front slate can be used for memoranda, and a sponge at the other side for wiping them out. It is useful, too, for leaving messages.

We gave last year a very nice arrangement for disposing of old spools. By using a little skill they can be formed into a very

Our Household.

LITTLE MARY.

Long after the other children
Had grown up and out of the way,
Another little fairy thing
Came into our home one day—
A little cooing, winsome sprite,
Always happy from morn till night,
Always singing a sweet, low tune
As she busied herself about the room.

Always following in my tracks,
Coaxing for snags and like knickknacks;
Wherever I go, her pattering feet
I hear behind, and her voice so sweet
Says, as I look in her eyes so blue:
"Mamma, me wants to be viz 'oo."
Although I suggest another room,
She demurs, and sits right on my broom,
Until I'll declare I'll sweep her away
If she doesn't go off by herself and play.
But all my words are of no avail—
Following, following in my trail,

All along without one stop,
Till my work is done and down I drop;
Then the wee midget climbs up in my lap,
Lays her head on my arm for a good, long nap,
Nor dreams that the safest place to rest
Is fast asleep on her mother's breast.

LOUISE LONG CHRISTIE.

HOME-MADE HANDKERCHIEFS.

Every lady seems to possess an inherent liking for dainty handkerchiefs, but too often the price places them out of her reach. But they are so easily made that no one having a small amount of talent for fancy work need grieve because she cannot pay fifty cents for a coveted article. If she has more time than money, she may indulge her fancy for these pretty adjuncts at a trifling cost, as compared with the price of a similar handkerchief from the store.

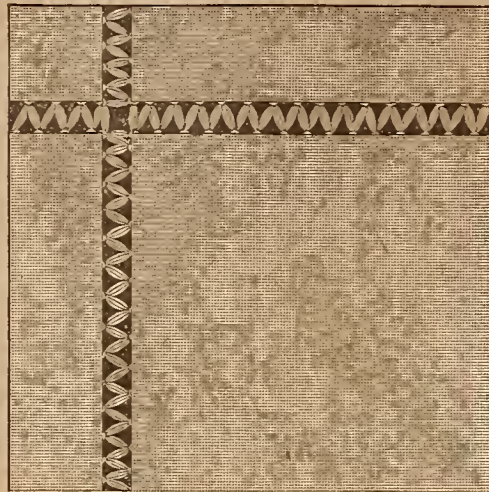
I have never been able to procure real handkerchief linen, but I find India linen an excellent substitute. One yard will make four handkerchiefs. It is better to draw a thread to cut them by, as it insures a straight edge. The work will be accelerated if all the handkerchiefs are hemstitched before the ornamental part is begun.

For a gentleman's handkerchief, the only work allowable, aside from the hemstitching, is an ornamental initial letter, or a small bunch or spray of flowers in embroidery.

A lady's handkerchief may be as elaborately worked as the fancy dictates. If one has patience, there may be a three-inch border in drawn-work, but usually the corners and a space about three inches in length between the corners is considered sufficient. Drawn-work is often combined with embroidery in this work. For myself, I consider white hemstitched handkerchiefs the nicest, and they are always in good form.

Dainty white silk handkerchiefs are easily made and very durable, much more so than many of those to be had at the stores. They are nice finished in hemstitch, but the most popular finish is to buttonhole-stitch the edge in scallops. If

Now, for a practical illustration, I wish to relate a friend's experience. By the way, she is a farmer's daughter, too. She bought four yards of India linen for eighty cents. From this amount she made two gentlemen's handkerchiefs and twelve ladies' handkerchiefs. By comparison with those at the store from which she copied, her work when completed was worth \$6.50. The work was something she enjoyed, and she evidently enjoyed giving them away, too. We, the receivers (I was remembered, too), derived far more pleasure from those



FANCY HEMSTITCH.—No. 1.

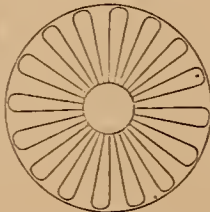
dainty, hand-made handkerchiefs than we would have received from a present costing twenty times as much. She laughingly says she made good wages, too.

While the accompanying illustrations are very simple, they are quite pretty made up, and very serviceable. I do not think any one will have any trouble in copying them. There is a fascination about the work that will lead you to search through the stores for new designs from which to copy.

ELZA RENAN.

HOME TOPICS.

HYGIENIC PUDDING.—This pudding can be made of any kind of fruit, either fresh or canned. If fresh fruit is used it must be stewed first and sweetened, if canned fruit, take it out of the can and heat it. Slice some stale bread, and with a biscuit-cutter cut out a round piece for the center of the bottom of the pudding-dish, then cut enough strips the size of your finger to cover the bottom of the dish, leaving a little space between the strips like cut, and stand others up around the sides. Dip the hot fruit into it, being careful to not disarrange the bread, and pour the juice over. Cover the top thickly with bread cut into small squares. Put a plate on top and a weight on the plate. Set the pudding in a cold place until wanted. It should be made several hours before dinner, and if it is pressed down well it will turn out nicely and keep its shape. Eat with cream. The pudding-dish should be buttered before the bread is put in and I think the pudding is improved if the slices of bread are slightly buttered, though it may not be quite so hygienic as without the butter.



EARLY BREAKFAST.—When one must have early breakfast it is a great help to have everything planned and in readiness over night. If potatoes are to be baked, have them washed and ready for the oven, the meat ready for the frying-pan or broiler, and if corn bread is to be baked, scald the corn-meal at night, or if biscuit, have the flour sifted with the baking-powder. Setting the table at night saves time in the morning, then, if the good man fills the tea-kettle and sets it over the fire as soon as it is built, breakfast can be put on the table very quickly. While talking about preparations for breakfast over night, I am reminded of another thing my dear mother taught me, which was to put the sitting-room in order at bed-time. Fold papers, put away books and work and brush up any litter that may have been made, then if sudden illness or accident occurs the house will be in order.

THE SCHOOLS.—The schools are in session now in town and country and a vast army of children are spending the days there. How many parents have visited these schools and made the acquaintance of the teacher? How many fathers would send their young stock, calves, colts, etc., to be looked after and fed by a stranger and never go to see how they were prospering? How many mothers would give a part of their household work, pickling, preserving, etc., into the hands of a stranger and never go to see how it was being done? Strange

as it seems these same fathers and mothers will send their children to school and not once during an entire term step inside the school-house to see for themselves what intellectual progress their children are making, or what moral influences are surrounding them. One parent says: "I know all that is going on at school. The children tell me all about it." Are you sure that you get the exact truth? Children who do not mean to tell anything that is untrue, are yet apt to put things in a different light from the true one. Their judgment and reasoning faculties are imperfectly developed. They may tell things as they see them and yet come far from the truth. Another one says: "I never let my children tell tales out of school." This is a mistake, too. If children are interested in school they will want to talk about it and should be allowed to do so. They will be encouraged to do their best if parents express pleasure when they have done well and sorrow when they have done ill. It is only when they come home with fault-finding tales that they should not be encouraged. If sympathized with then, much mischief may be done to the teacher's influence and authority. Visit the school often; make yourself acquainted with the teacher and if you are then convinced that she is unjust, speak to her privately, never let the children suspect it, and in making up your mind be very charitable. Remember she has thirty or forty children to deal with, and can be only imperfectly acquainted with their dispositions, and are there not times when even a mother punishes unjustly? However faithful and earnest a teacher may be, she cannot work to the best advantage if she does not have the support and co-operation of the parents. Often, in a few minutes talk with a parent, a teacher gets an insight into a child's character and disposition which she could not have gained in weeks by observation, and which will have an incalculable influence on the school life of the child.

MAIDA McL.

Ben Adam had a golden coin one day,
Which he put out at interest with a Jew;
Year after year awaiting him it lay,
Until the double coin two pieces grew,
And these two four, till all the people said,
"How rich Ben Adam is!" and bowed the servile head.

Ben Selim had a golden coin that day,
Which to a stranger, asking alms, he gave,
Who went rejoicing on his unknown way,
And Selim died, too poor to own a grave.
But when his soul reached heaven, angels with pride
Showed him the wealth to which his coin had multiplied.

HOE-CAKE.

Gipsy asks for the modus operandi of making the old plantation hoe-cake. Here it is:

Meal sufficient, a pinch of salt—though most southerners omit the salt—cold water to mix a stiff dough with the hand. Mix very thoroughly. Have your iron hot and well greased; put on a double handful of the mixture and press it out into a flat cake half an inch thick. When nicely browned on one side, turn the same as pancakes and brown on the other side. Eat while hot, with plenty of butter.

I lived there twenty years, and know this is the way it is done "down South," notwithstanding the tradition:

"De way dey bake de hoe-cake
In ole Virginny neber tire,
Dey slap it on a uigger's foot
And hol' it to de fire."

Lincoln, Neb.

HALLIE.

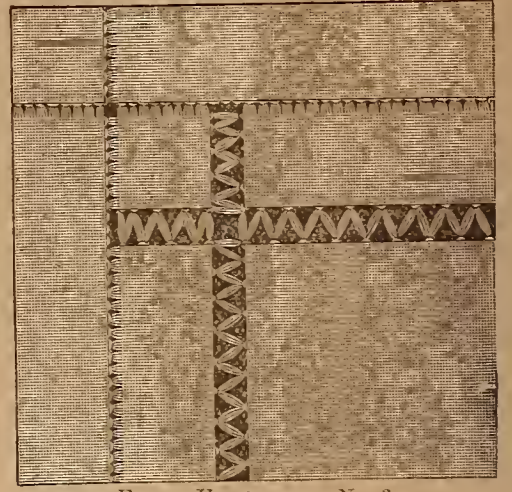
FUNERALS.

Since death is but transition, and the idea of a horrible life after death is fast disappearing, why need a funeral be such a mournful occasion? It is sad and solemn, to be sure, but there are many things harder and sadder to endure than the loss of friends through death. In many instances the going out is so beautiful that it seems a fit season for rejoicing. In the death of a little child, who dies in his innocence and purity; in the transition of the aged who go to join the friends of their youth, is it not wrong to invite gloom and lamentation.

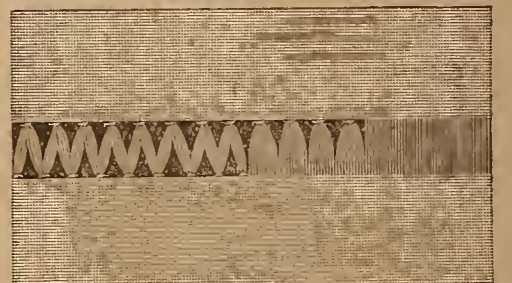
But it is not a funeral sermon, but some ideas concerning the conducting of affairs at such a time that provokes this paper.

I attended a funeral not long ago, the sensibility of which recommended itself. A little boy had been called home. On the day of burial there were no darkened rooms, but instead, the October sunshine crept through the whole house. Bright-colored boughs of maple decorated the rooms profusely, and as the chrysanthemums—not the white ones alone, but the

bright-hued ones, too—nodded at one from all sides, it seemed that some of the dear boy's sunshine was flooding the house. The high-chair was twined with a pretty vine, which carelessly caught here and there a crimson leaf. There were no violent demonstrations of grief, and even though the mother's heart was very sore, the calmness of her quiet face was reassuring, while with her own hands she assisted in dressing her boy for burial. Why should these duties be left for strangers' hands? The funeral services were simple. Two near



FANCY HEMSTITCH.—No. 3.



PATTERN FOR HEMSTITCH.—No. 3.

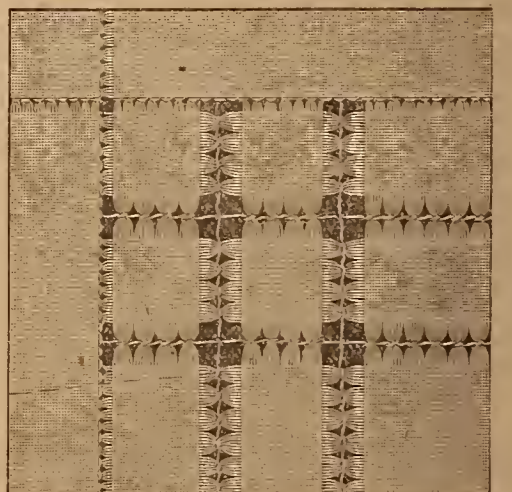
relatives sang, another read an appropriate poem, the minister read a brief service, followed by a prayer, and the neighbor boys were pall-bearers. It was emblematic of the child's life.

M. D. S.

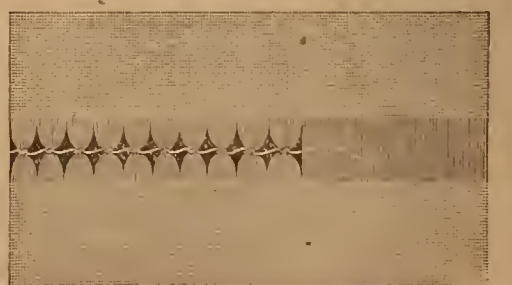
To every spirit, as it is most pure,
And hath in it the more of heavenly light,
To it the fairer bodie doth procure,
To habit in, and it more fairly dight
With cheerful grace and amiable sight;
For of the soul the bodied form doth take;
For soule is forme, and doth the bodie make.
—From Spencer's "Hymn in Honor of Beatrice."

WHERE "CANNING" CAME FROM.

We are indebted to the people of old Pompeii, who were all smothered in the first century of the Christian era, for one of the most important industries of our time—the canning business. Years ago, when the first excavations were made in that buried city, an American came upon several jars of figs. When they were opened the contents were found to be as fresh and palatable as when they were put up eighteen centuries before. Investigations

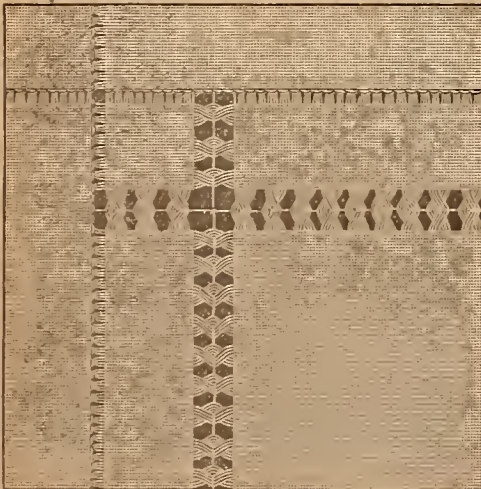


FANCY HEMSTITCH.—No. 4.

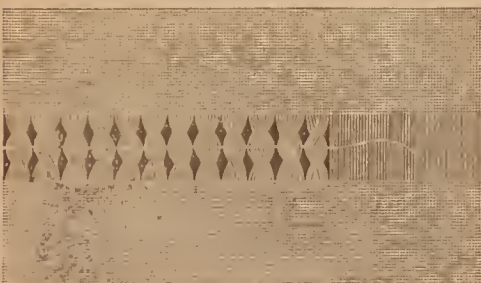


PATTERN FOR HEMSTITCH.—No. 4.

instituted upon the spot proved that the fruit had been put into jars in a highly heated state, and that an aperture for the escape of steam had been left on the lid, which, when it had served its purpose, was sealed over with wax. Yankee ingenuity caught the idea at once and the next year canning factories were erected all over the United States.



FANCY HEMSTITCH.—No. 2.



PATTERN FOR HEMSTITCH.—No. 2.

silk twenty-four inches wide is to be obtained, it will just be sufficient for six handkerchiefs. The edges are buttonhole-stitched, and a border may be done in embroidery; or an initial letter alone may form the decoration. The newest handkerchiefs in linen and silk have scalloped edges.

THE GOLDEN BUTTERFLY.

BY MINNIE W. BAINES-MILLER.

I saw a golden butterfly
That circled in the light;
His shining course, now low, now high,
He wheeled in airy flight.
A lovely, painted, yellow thing,
Nor bird, nor blossom, but his wing
The swiftness and the beauty blent
That made him both, to all intent.

He sought the red heart of the Rose
And drank her attar up;
He sipped the hydromel that flows
From Lily's ivory cup;
Nor missed sweet Violet shyly hid
In purple gown, her leaves amid,
Or Mignonette, like love in bloom
That every hour gives out perfume.

But soon the fleeting day was done;
Its sunny hours took flight;
His life's chromatic scale was run,
Whose notes were bloom and light.
I saw him lie with broken wing,
A poor, discolored, lifeless thing,
Beneath the rain that rippled through
A frowning cloud that hid the blue.

Soul, art thou like the butterfly
That skims the present hour,
With thoughts and hopes that do not lie
Beyond its sun and flower?
If so, be wise, thou foolish thing,
Ere faded joy and broken wing,
Descended night, and falling rain,
Shall prove thee to have lived in vain.

—Cincinnati Post.

THE NOBILITY OF LABOR.

THESE is one impress of legitimate nobility stamped upon everything worth preserving or remembering, either for its beauty or usefulness, in all the universe. The blue sheet of sky, spangled with the glowing finger marks of God peering down into the darkness of the night, like eyes that are lidless and never sleep; the meteor gilding millions of miles with flashing beauty, and consuming itself with its own burning magnificence; the quenchless sun raining its light and heat upon the earth; the mountain range lifting its whitened peaks into the clouds, and with its grandeur breaking the monotony of the landscape; the blooming valley with its gorgeous apparel of flowers and verdure; the brook and the rivulet, the cascade and the cataract and the turbulent ocean; the quiet dell and the boisterous volcano, hurling its molten madness at the skies, and spreading hissing, burning death at its base; the twisting tongues of fire that stream from the darkness and lick the clouds and glare among the mountain tops and frolic over the plains; the intricate machinery of the human body, delicate as a spider's web, yet housing the peerless and most priceless gem that sea, or sky, or mountain ever hoarded; the rude cross of Calvary, dripping with the blood of God, and arched with a sweet rainbow of promise to man, all bear this shining signet of nobility—the nobility of labor—the labor of eternal thought.

Blood never makes a nobleman. The blood of the king is as poor as that of the peasant, and often poorer. The blood of the autocrat, whose whisper shakes a kingdom and whose nod awes a continent, is not more crimson or of greater virtue than the serf's which the autocrat despises. Birth never endows nobility. The magnificence of the cradle or the tinted frescoing and gorgeous drapery of the palace never created rank. He alone is a nobleman who has made the world better and happier for having lived, who has fringed the clouds with silvery beauty, planted the rose and watered it into bloom upon the desert waste, beautified the forest wilds or gathered the splendors of the valley into charming symmetry. There are millions of noblemen's graves over which a tear was never shed, and which time has leveled to the even surface of the prairie, but from which streams back through centuries the glow of a nobility which charms a world into humble worship of its sublimity and genuine worth. Many a man has died unhonored and unsung, who left in every footprint from his childhood to the tomb a rich and brilliant legacy to the world, and no legacy worth commemorating was ever left the world which was not baptized in the sweat of honest toil. From mental and physical exertion the earth has been made to blossom, the seas have been covered with life, civilization has shot its sunshine into the gloom of rudeness, and Christianity has rained its softness on the world. On every field that bears a tempting harvest on its breast, on every brick in every building that was ever reared, on every book of every value that was ever written, on every thought that burns to light the

world, in every workshop and mine and furnace and factory—wherever laborsweats, are written the credentials of nobility.

A PLACE FOR EVERY WOMAN.

The woman who complains that she has no place in the world has only to open her eyes, and in most instances she will readily see what is waiting for her. The fact that she does not like that particular field is no argument against its usefulness for her. Patience Strong, detained at home by an untoward accident when the long-wished-for European tour was about to become a reality, found opportunities by the score for useful service. If no home duties call, the sign is plain that in some broader field there is, in a happy sense of the word, a career to be sought. The cultivation of some talent may be destined to bring pleasure and profit. The student has a boundless field before him. To many a secluded one the Chautauque reading courses have proved sources of untold, almost unending delight. If the necessity of self-support exists, there is a large place for the single woman. Good nurses, teachers, artists, musicians, writers, dressmakers and workers in a dozen more lines of industry are always in demand. None but the inefficient or the unfaithful ordinarily need complain of lack of employment.

With some there is great unwillingness to accept the place for which they have special fitness. The adept in the womanly art of needlework who, despising her talent, aspires to the rewards of an artist's skill while lacking fitness for such a position, has reason to find herself without a position. Success is to be expected in the line of one's abilities, not always in the line of one's desires. Discontent because genius or great power has been denied is simply an impious fault-finding with the Creator's plan. If all women were great musicians, where were the needleworkers? If all excelled in ministering to the sick, where should we seek our works of art and tasteful decorations? Willing to be placed where one can accomplish most, always means happiness and contentment. The oft-quoted apothegm, "There is always room at the top," is worthy of the author of the Proverbs. "Place our dames" is the watchword of the century. The single woman, better than her married sister—because, ordinarily, she has greater freedom—is in a position to reap the advantages of the hour. Let her exult in her heritage, and not allow a complaint to pass her lips, in this closing decade of the nineteenth century, that there is no place for her.—*Harper's Bazar*.

A WIFE'S TRAINING.

There is a man, abundantly supplied with worldly goods and with daughters, who believes that every woman should know how to do at least one thing well. Consequently, his five daughters know several things besides dancing and music and riding. One girl has learned stenography, and her fingers are as expert with the keys of a typewriting machine as with the keys of a piano. Another is skilful with the needle, and two others could earn their living as school-teachers. "I hope," says this father, "that my daughters will never have to earn their own living. But I once had serious financial troubles in my younger days, and who knows that I may not have them again? If I were to be penniless I think that all my daughters could take care of themselves."

ANOTHER USE FOR THE ONION.

A very convenient mucilage can be made of onion juice by any one who wishes to use it. A good-sized Spanish onion, after being boiled a short time, will yield, on being pressed, quite a large quantity of very adhesive fluid. This is used quite extensively in various trades for pasting paper onto tin or zinc, or even glass, and the tenacity with which it holds would surprise any one on making the first attempt. It is the cheapest and best mucilage for such purposes, and answers just as well as many of the more costly and patent cements. Some of the cements sold by street fakirs at ten cents a bottle consist of nothing but onion juice and water, and the bottle and cork cost a great deal more than the contents.

The art of forgetting is a blessed art; but the art of overlooking is quite as important. And if we should take time to write down the origin, progress and outcome of a few of our troubles, it would make us so ashamed of the fuss we make over them that we should be glad to drop such things and bury them at once in eternal forgetfulness.

A DETROIT MIRACLE.

A GREAT TRIUMPH FOR MEDICAL SCIENCE.

PARTICULARS OF ONE OF THE MOST REMARKABLE CURES ON RECORD DESCRIBED BY THE DETROIT NEWS—A STORY WORTH A CAREFUL PERUSAL.

DETROIT, Mich., December 31, 1892.—A case has just come to light here, the particulars of which are published in the *Evening News*, which will be read with considerable interest, as it records the remarkable achievement of a medical discovery, which has already won great and enduring fame. The story is told by the *News* as follows:—

The following paragraph, which appeared in the *News* a short time ago, furnished the basis of this information—a case that was so wonderfully remarkable that it demanded further explanation. It is of sufficient importance to the *News'* readers to report it to them fully. It was so important then that it attracted considerable attention at the time. The following is the paragraph in question:—

"C. B. Northrop, for 28 years one of the best known merchants on Woodward avenue, who was supposed to be dying last spring of locomotor ataxia, or creeping paralysis, has secured a new lease of life and returned to work at his store. The disease has always been supposed to be incurable, but Mr. Northrop's condition has greatly improved, and it looks now as if the grave would be cheated of its prey."

Since that time Mr. Northrop has steadily improved, not only in looks, but in condition, till he has regained his old-time strength.

It had been hinted to the writer of this article, who was acquainted with Mr. Northrop, that this miraculous change had been wrought by a very simple remedy called Dr. Williams' Pink Pills for Pale People. When asked about it Mr. Northrop fully verified the statement, and not only so, but he had taken pains to inform any one who was suffering in a similar manner when he heard of any such case. Mr. Northrop was enthusiastic at the result in his own case of Dr. Williams' Pink Pills. It was a remedy that he had heard of after he had tried everything he could hope to give him relief. He had been in the care of the best physicians who did all they could to alleviate this terrible malady, but without any avail. He had given up hope, when a friend in Lockport, N. Y., wrote him of the case of a person there who had been cured in similar circumstances by Dr. Williams' Pink Pills for Pale People. The person cured at Lockport had obtained his information respecting Dr. Williams' Pink Pills from an article published in the *Hamilton, Ont., Times*. The case was called "The Hamilton Miracle," and told the story of a man in that city who, after almost incredible suffering, was pronounced by the most eminent physicians to be incurable and permanently disabled. He had spent hundreds of dollars in all sorts of treatment and appliances only to be told in the end that there was no hope for him, and that cure was impossible. The person alluded to (Mr. John Marshall, of 25 Little William St., Hamilton, Ont.), was a member of the Royal Templars of Temperance, and after having been pronounced permanently disabled and incurable by the physicians, was paid the \$1,000 insurance disability provided by the order for its members in such cases. For years Mr. Marshall had been utterly helpless, and he was barely able to drag himself around the house with the aid of crutches. His agonies were almost unbearable and life was a burden to him, when at last relief came. Some months after he had been paid the disability claim he heard of Dr. Williams' Pink Pills and was induced to try them. The result was miraculous; almost from the outset an improvement was noticed, and in a few months the man whom medical experts had said was incurable, was going about the city healthier and stronger than before. Mr. Marshall was so well known in Hamilton that all the city newspapers wrote up his wonderful recovery in detail, and it was thus as before stated, that Mr. Northrop came into possession of the information that led to his equally marvelous recovery. One could scarcely conceive a case more hopeless than that of Mr. Northrop. His injury came about in this way: One day nearly four years ago, he stumbled and fell the complete length of a steep flight of stairs which were at the rear of his store. His head and spine were severely injured. He was picked up and taken to his home. Creeping paralysis very soon developed itself, and in spite of the most strenuous efforts of friends and physicians the terrible affliction fastened itself upon him. For

nearly two years he was perfectly helpless. He could do nothing to support his strength in the least effort. He had to be wheeled about in an invalid's chair. He was weak, pale and fast sinking when this timely information came that veritably snatched his life from the jaws of death. Those who at that time saw a feeble old man wheeled into his store on an invalid's chair, would not recognize the man now, so great is the change that Dr. Williams' Pink Pills have wrought. When Mr. Northrop learned of the remedy that had cured Mr. Marshall in Hamilton, and the person in Lockport, he procured a supply of Dr. Williams' Pink Pills through Messrs. Bassett & L'Honnmedieu, 95 Woodward avenue, and from the outset found an improvement. He faithfully adhered to the use of the remedy until now he is completely restored. Mr. Northrop declares that there can be no doubt as to Pink Pills being the cause of his restoration to health, as all other remedies and medical treatment left him in a condition rapidly going from bad to worse, until at last it was declared there was no hope for him and he was pronounced incurable. He was in this terrible condition when he began to use Dr. Williams' Pink Pills, and they have restored him to health.

Mr. Northrop was asked what was claimed for this wonderful remedy, and replied that he understood the proprietors claim it to be a blood builder and nerve restorer, supplying in a condensed form all the elements necessary to enrich the blood, restore the shattered nerves and drive out disease. It is claimed by the proprietors that Pink Pills will cure paralysis, rheumatism, sciatica, palpitation of the heart, headache, and all diseases peculiar to females, loss of appetite, dizziness, sleeplessness, loss of memory, and all diseases arising from overwork, mental worry, loss of vital force, etc.

"I want to say," said Mr. Northrop, "that I don't have much faith in patent medicines, but I cannot say too much in praise of Dr. Williams' Pink Pills. The proprietors, however, claim that they are not a patent medicine in the sense in which that term is used, but a highly scientific preparation, the result of years of careful study and experiment on the part of the proprietors, and the pills were successfully used in private practice for years before being placed for general sale. Mr. Northrop declares that he is a living example that there is nothing to equal these pills as a cure for nerve diseases. On inquiry the writer found that these pills were manufactured by Dr. Williams' Medicine Co., Schenectady, N. Y., and Brockville, Ont., and the pills are sold in boxes (never in bulk by the hundred) at 50 cents a box, and may be had of all druggists or direct by mail from Dr. Williams' Medicine Co., from either above addresses. The price at which these pills are sold makes a course of treatment with them comparatively inexpensive as compared with other remedies or medical treatment. This case is one of the most remarkable on record, and as it is one right here in Detroit, and not a thousand miles away, it can be easily verified. Mr. Northrop is very well known to the people in Detroit, and he says he is only too glad to testify of the marvelous good wrought in his case. He says he considers it his duty to help all who are similarly afflicted by any word he can say in behalf of the wonderful efficacy of Dr. Williams' Pink Pills. If any of the *News* readers want any further information, we feel sure Mr. Northrop would willingly oblige them, as he has the writer in relating these facts to him."

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TO

ST. PAUL AND

MINNEAPOLIS

Our Sunday Afternoon.

IT MAY BE YOUR TURN NEXT.

Judge not too harshly, O my friend,
Of him your fellow-man,
But draw the veil of charity
About him if you can.
He once was called an honest man,
Before sore trial vexed;
He stepped from out the narrow way—
It may be your turn next.

Fainting upon the great highway
A suffering soul doth lie;
Go stanch his wound and quench his thirst
Nor pass him idly by.
God will not brook the swift excuse,
The thoughtless, vain pretext;
A fellow-mortal bites the dust—
It may be your turn next.

You heard one day a single word
Against a person's name;
Oh, bear it not from door to door,
To further hurt his fame.
If you're the man you claim to be,
Remember, then, the text,
To "speak no evil," true or false—
It may be your turn next.

The world is bad enough, we own,
And many need more light;
Yet, with true love to all, may we
Help in the cause of right.
Lift up the sinful and the weak,
The soul by care perplexed,
Well knowing that to drink the gall
It may be your turn next.

THE NEW NAME.

TO HIM that overcometh, Christ promises a new name. The real name is the promise of a new nature, new power, new privileges. Abram, the high father, becomes Abraham, the father of a multitude, or of many nations; Jacob, the supplanter, becomes Israel, the prince of God; Simon becomes Cephas, a stone, the impetuous weakness of his nature transformed into the strength and firmness of a rock.

The new self is as individual as the old; nay, it is more so. It is the real self. Sin dwarfs, distorts and weakens the nature. Spiritual life restores it to the glory for which it was designed. Holiness is self-realization. When the prodigal son came to himself he hastened to return to his father's house.

The new name, the new nature, the new powers, the new privileges come from Christ. He only realizes his best possibilities who makes the perfect character of Christ his ideal, who is inspired by his teachings and is renewed by his Spirit. Salvation is character. It is a divine life which stamps the image of Christ on the heart and makes the daily life a Gospel. As the sunshine fixes a picture on the sensitive prepared plate, so the lineaments of Christ are wrought by the Holy Spirit on the heart that turns toward him. "We are changed into the same image, from glory to glory, as by the Spirit of the Lord." He that has the new name can say with Paul: "I am crucified with Christ; nevertheless I live; yet not I, but Christ liveth in me." Paul was immeasurably more of a man when he could say, "Not I, but Christ liveth in me," than when he lived in all good conscience, but was blind to the beauty and opposed to the will of the God-man. Human nature is a vast organ whose music Christ alone can fully bring out.

TRIFLES FOR YOUR DEAR FRIENDS.

The crying demand of the times is for more, not less, interest in bodily enjoyment, dress, esthetic surroundings, refining conventionalities, and the opportunity for improved esthetic culture. It would be difficult to estimate the numbers of people, especially in small towns and villages, who are literally stagnating and falling into ill-health for want of social intercourse and the pleasure which would come through the cultivation of gracious, but not necessarily expensive enjoyment. Dress, too, and personal surroundings, are of prime importance. These things are not frivolities. Statistics show that there are more farmers and farmer's wives, and others who are deprived of rational social pleasure, in our insane asylums than of any other class, and for no other reason than the lack of stimulating surroundings, interests and associations.

Let us learn to look at life rationally, to take enjoyment as we take our work, because it has a serious purpose in bringing human nature to the realization of its best possibilities.

I believe that every community should cultivate social enjoyments, modeled, as far as possible, upon the basis of social life in the larger cities—that is, with scrupu-

lous attention to evening dress, bright and attractive however inexpensive, to make it a complete change from the ordinary garb of utility; with regard to refining conventionalities, for "company manners"—that is, for ease and graciousness of bearing, and a general striving to throw off crudity and the unmistakable rusticity and awkwardness which characterize so many excellent people and make them appear nervous and at their worst in any social gathering. These things are among the important trifles of life, and are worthy of serious consideration.—*Jenness Miller's Monthly.*

UNNECESSARY HOUSEWORK.

It takes some good judgment on the part of the housekeeper to know where and how to slight her work. We see housekeepers who go through their daily and yearly round of work, doing all things well, and doing the unimportant things as well as the most important ones. Such a housekeeper, if she does her own work, is of course a drudge, as any person must be who lays out the same amount of effort on all things, regardless of the results, and who neglects nothing that may be made a subject of work. Some housewives have a faculty for making work where there is no need for it; they are naturally industrious and love cleanliness, and their life is a constant warfare against a speck of dust or a misplaced chair or something else that offends the imagination more than any requirements of their existence. With these people the game is too often not worth the powder that they expend to bring it down. They are not discriminating in the application of their labor, and are just as likely to direct it where it shows no result as where it does. These women never say die, and if their back is broken their spirit is not. Their treadmill is largely of their own creation. There is housework that is really created by the worker. The science of housekeeping calls for the suppression of work as well as for its correct performance, and these housekeepers who are incessantly planning work, might better lay their plans to make some of their work unnecessary.

AFFLICTION IN THE LIGHT OF THE CROSS.

When Job's wife bade her sadly-afflicted husband "curse God and die," she gave terse expression to a feeling common to unrenowned human nature. The deeply thoughtful Amiel says: "The natural man curses grief;" but, he adds: "The Christian interprets it in the light of the cross." To the former it is nauseating bitterness poured into the cup of his earthly pleasures. It disgusts his selfish appetites, makes him angry with God and keeps up a tempest of discontent in his soul. To the latter it is pain mitigated by the consolations which arise from the sympathy of Christ and the inspirations of hope. Seeing that the cross was, as Amiel strikingly phrases it, "the apotheosis of grief in which suffering was a triumph, the crown of thorns a crown of glory, a gibbet a symbol of salvation," he submits to it as to the discipline of love which is working in him a greater fitness for heaven and contributing an added weight of glory to his felicity in the life to come. Therefore the peace which flows from submission to the divine will, and the bliss which is begotten by hope, prevent his complaints and enable him to say, with Luther, "Strike, Lord, strike, but oh, do not forsake me!" and with his suffering Lord, "Thy will be done!"—*Watchman.*

"A LITTLE WHILE."

Have you learned the blessed doctrine taught by these words? There is a deeper meaning than may at first appear. Everything of earth is brief. It lasts but a "little while." The labor of life, earnest or otherwise, for Christ or Satan, will soon be over. Foes may hate, friends may forsake—'tis but for a "little while." Trials, though they seem severe, will not always endure. Tears will not fall forever. Life is rapidly passing. We are here only for a "little while." Do we get discouraged? Do we keenly feel the shafts hurled at us? Do we grieve over the coldness of professed friends? It is only for a "little while." The Master tarries, but soon he will come. We wait with hope and daily cry, "Come, Lord Jesus, come." "A little while" and our prayers will be answered and he will come.

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ART in needlework is on the advance. We know the ladies delight in odd pieces of silk and satin, "CRAZY QUILT" making is VERY POPULAR. We are sure we have a bargain that all ladies will not resist. Bright, handsome, odd-shaped, and pretty colored goods accumulate very fast at all SEWING FACTORIES; for years have been burdened and overrun with remnants of many BICH goods. We have thousands of pieces of silk and satin on hand which we are going to give you a big trade on. People at distance have hard times getting the right assortment to put into sofa-pillows, quilts, etc., and we can help you out now. We are going to dispose of this immense lot EIGHT OFF. Our packages contain from 20 to 100 pieces of the best quality assorted goods, and we want to get lot introduced into every home. When you can order as you like for your friends, and MAKE MONEY doing our work and helping yourself also. Remember these pieces are carefully trimmed, and especially adapted to all sorts of fancy art, and needle work. Many ladies sell lilies, fancy pillows, etc., at a great price made from these remnants. Order one sample lot now for only 25c. It would cost many dollars bought at a store. GRAND OFFER: If you order our great assorted lot AT ONCE, we will give you, absolutely FREE, five skeins of elegant embroidery silk, all different bright colors. This silk is worth nearly the price we ask for the remnants; but we know if you order ONE lot we will sell many in your locality, so make this liberal offer. Three lots for \$1.00. BEST WAY. We send one of the above complete assorted lots FREE to all who send 25 cents for 6 months subscription to "COMFORT," the best Home Monthly now published, or if you send for more than one lot as above, "COMFORT" goes for one year.
COMFORT PUB. CO., Box 121 Augusta, Maine.

BETTER YET. To all answering this ad. before 30 days we will also send 6 pieces of elegant PLUSH FREE. They come in Red, Blue, Green, Old Gold, etc.

GOLD RINGS FREE!

We will give one half-round Ring, 18k Rolled Gold-plated Ring, warranted to anyone who will sell 1 doz. "Indestructible" Lamp Wicks (need no trimming) among friends at 10c. each. Write us and we will mail you the Wicks. You sell them and send us the money and we will mail you the Ring.
STAR CHEMICAL CO., Box 55, Centerbrook, Conn.

FROM FACTORY DIRECT



TO YOUR HOME STEREO PARLOR SET
of three pieces (for the next 60 days) will be sent to any address on receipt of 95 cents to pay expenses, boxing, packing, advertising, etc. This is done as an advertisement and we shall expect every one getting a set to tell their friends who see it where they got it and to recommend our house to them. This beautiful set consists of one sofa and two chairs. They are made of fine lustrous metal frames, beautifully finished and decorated, and upholstered in the finest manner with beautiful plush (which we furnish in any color desired). To advertise our house, for 60 days, we propose to furnish this set on receipt of 95 cents. Postage stamps taken. No sample charge for longer mailing. United States Furniture Co., 111 Nassau St., N. Y.

Selections.

WHITTIER'S LAST POEM.

TO OLIVER WENDELL HOLMES.

(On his 83rd Birthday Anniversary, August 29, 1892.)

A few days after this beautiful tribute to his friend and fellow poet was written, the prophecy in the last two stanzas was fulfilled.

Among the thousands who with hail and cheer
Will welcome thy new year,
How few of all have passed, as thou and I,
So many milestones by!

We have grown old together; we have seen,
Our youth and age between,
Two generations leave us, and to-day
We with the third hold sway,

Loving and loved. If thought must backward
run
To those who, one by one,
In the great silence and the dark beyond
Vanished with farewells fond,

Unseen, not lost, our grateful memories still
Their vacant places fill,
And with the full-voiced greeting of new
friends,
A tender whisper bleeds.

Linked close in a pathetic brotherhood
Of mingled ill and good,
Of joy and grief, of grandeur and of shame,
For pity more than blame—

The gift is thine the weary world to make
More cheerful for thy sake,
Soothing the ears its Miserere pains,
With the old Hellenic strains,

Lighting the sullen face of discontent
With smiles for blessings sent,
Enough of selfish wailing has been had,
Thank God! for notes more glad.

Life is indeed no holiday; therein
Are want, and woe, and sin,
Death and its nameless fears, and over all
Our pitying tears must fall.

Thy hand, old friend! the service of our days,
In differing moods and ways,
May prove to those who follow in our train
Not valueless or vain.

Far off, and faint as echoes of dream,
The songs of boyhood seem,
Yet on our autumn boughs, unflown with
spring,
The evening thrushes sing.

The hour draws near, how'er delayed and late,
When at the eternal gate
We leave the words and works we call our own,
And left void hands alone

For love to fill. Our nakedness of soul
Brings to that gate no toll;
Giftless we come to Him, who all things gives,
And live because He lives.

A GLASS OF WATER AT BED-TIME.

THE human body is constantly undergoing tissue change. Water has the power of increasing these tissue changes, which multiply the waste products, but at the same time they are renewed by its agency, giving rise to increased appetite, which in turn provides fresh nutriment. Persons but little accustomed to drink water are liable to have the waste products formed faster than they are removed. Any obstruction to the free working of natural laws at once produces disease. People accustomed to rise in the morning weak and languid will find the cause in the secretion of wastes, which many times may be remedied by drinking a full tumbler of water before retiring. This materially assists in the process during the night, and leaves the tissues fresh and strong, ready for the active work of the day. Hot water is one of the best remedial agents. A hot bath on going to bed, even in the hot nights of summer, is a better reliever of insomnia than many drugs.—*Jenness-Miller Monthly.*

THINGS A GIRL SHOULD LEARN.

She should learn to handle a goblet by its stem, and not by its bowl.

She should learn how to make a pretty bow.

She should learn—as she learned her alphabet—that a gentleman should always be presented to a lady, never a lady to a gentleman.

She should learn that it is bad form to congratulate a bride at a wedding. One congratulates the bridegroom and wishes the bride happiness.

She should learn that it is the worst of bad taste to appear thoughtful or absent-minded in company.

She should learn, at table, to dip her soup from her; to use her fork only in the fish course; to lay knife and fork aside when she passes her plate; to eat out of the side of her spoon, and to fold her napkin.—*New York and Paris Bazar.*

TREATMENT OF THE SKIN.

New advice for treatment of the skin is continually appearing, and one's only way is to try the different methods until the right one is found for oneself, then to persevere in that. Changing does more harm than good, and much fussing with new soaps and applications is likely to ruin the skin beyond possibility of cure. The treatment a recent writer interested in the subject suggests, however, seems more innocent than many have given. Splash the face at night with lukewarm water in which a handful of oatmeal has stood long enough to make the water quite soft. In the morning bathe in cold water, and apply gentle friction.

To cleanse the face thoroughly, apply cold cream; keep it on for five minutes, then rub it off, and you will be astonished at the amount of dirt that comes away with it. Keep a good digestion, and avoid rich cake, pastry and confectionery. Take a quick sponge-bath every day, sometimes using a little ammonia or borax in the water.—*Domestic Monthly.*

HOME-MADE PHYSICAL CULTURE.

To keep the complexion and spirits good, to preserve grace, strength and agility of motion, says the *Medical Record*, there is no exercise more beneficial in result than sweeping, dusting, making beds, washing dishes, and the polishing of brass and silver. One year of such muscular effort within doors, together with regular exercise in the open air, will do more for a woman's complexion than all the lotions and pomades that were ever invented. Perhaps the reason why house work does so much more for women than games, is the fact that exercise which is immediately productive cheers the spirit. It gives women the courage to go on living, and makes things really worth while.

CURE FOR COLD IN THE HEAD.

About all that medicine has been able to do for a cold in the head is to give it a Greek name, Coryza, which comes from two words, signifying "the head" and "to boil." This is not very much, for in spite of the Greek name, most of us call it by its common name, "a cold in the head."

Dr. Weber thinks he has, however, found a way to cut it short, and it is a simple, harmless one. His treatment consists in touching the entire mucous membrane of the nose, from the very beginning of the cold, with a brush dipped in glycerine. The insertion of the brush and the application of the glycerine are disagreeable, but there can be no question of the fact that cold is relieved in a most rapid and effective manner. For this reason we should try to find some way of avoiding the disagreeable sensation caused by the passage of the brush. The best way would be to use absorbent cotton, made into a little roll and gently passed into the nasal fossæ, after having been dipped in glycerine.—*Jenness-Miller Monthly.*

"Horrid bore, isn't it?" said one victim at a society "crush" to another.

"Beastly," was the cordial answer.

"Let's go home."

"I wish I could, but you see I can't; I'm the host."

THE CZAR'S CONSUMPTIVE SON.

The Grand Duke George, the Czar of Russia's second son, was recently obliged to return from India because of serious pulmonary trouble, and has since that time been undergoing a very remarkable course of treatment in the Caucasian Mountains. The walls of his apartment are bare and unpapered, the furniture of plain wood without upholstery or covering of any kind, while his bed has only the thinnest kind of a mattress. During the coldest weather, only a very low fire is kept up, while the windows are continuously open. This treatment has caused his attendants dreadful suffering, but his medical advisers hope by this means to destroy the bacillus and prevent the formation of tubercle, and they predict that in two years their distinguished patient will be restored.

Even should this very unusual treatment of consumption prove a success, it seems very unlikely that it will ever become popular. People in any stage of Pulmonary trouble, who have neither the time, money, nor fortitude to have the disease frozen out of them, should interest themselves in the natural cure, by which thousands of persons have been cured of Consumption, right in their own homes. We refer to the Compound Oxygen Treatment of Drs. STARKEY & PALEN, which has been before the public twenty-three years, founded on common sense, inviting the closest scrutiny, and in the possession of thousands of such letters as this:

"DRS. STARKEY & PALEN, 1529 Arch Street, Philadelphia, Pa.:—Your Compound Oxygen is all you claim for it, and more too. Not only in my own case, but in W. B. Hinton's case it has done wonders. We were both given up by our friends and physicians as hopeless consumptives; to-day, after two months' use of your Compound Oxygen Treatment, we are almost as well as ever in our lives. Dr. Hicks, a friend of mine, tells me he has used your Compound Oxygen Treatment with the best results. Through the blessing of God it has saved my life and restored me to health."

L. A. PEACOCK, M. D., Smithville, Ga.
Persons with pulmonary trouble should lose no time in writing to Drs. Starkey & Palen, 1529 Arch Street, Philadelphia, or Chicago, San Francisco, New York, and Toronto, Ont.

THE MARGIN OF SILENCE.

The city man who goes to the country seeks a certain remoteness from villagers and people; he wants a margin of repose and silence about him. He is eager to get away from the unconscious but very real pressure of dense populations; to escape the noise and tumult and constant presence of mobs and crowds. There is a deep instinct in his soul which prompts him to seek quiet and solitude in order that he may recruit his depleted spiritual force. He has a sense of being submerged and lost; he craves the opportunity of returning to himself and recovering his individuality. Such a margin of silence and repose is the constant necessity of every thoughtful mind and every fruitful career. An active, creative man must be in the world, but can never be of it; he must keep at a distance and resist its approach as if it were a deadly enemy. To draw one's inspiration from those deep springs which feed the soul in silence and hidden places, and then to give this inspiration to men through all the powers of activity and self-expression, is to live a whole sound life; to attempt to draw one's strength from the world is to run dry, and become a dusty, arid channel instead of a living stream. Many active, earnest men and women, in their eagerness to serve and achieve, violate this fundamental law of deep living, and surrender to the world that which is not theirs to give.

A margin of silence, repose and solitude must protect every life that steadfastly grows and expands; to live without it is to violate one of the sanctities of our nature. Out of the rush and tumult of the world one must often retire into the silence where God speaks with the still, small voice never heard amid the uproar of mobs and cities. An hour of quiet, silence and solitude every day would save many a man from intellectual bankruptcy and many a woman from nervous wreck. The physical need of repose is as great as the intellectual and spiritual need. The body craves its quiet hour no less than the mind and the soul; if the senses are always on the alert and the tension is never broken, the nerves succumb and the harmony of the noble instrument is turned into a discord full of misery. The greater one's work and power the deeper one's need of privacy.—*The Christian Union.*

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 820 Powers' Block, Rochester, N. Y.

QUILT PATTERNS! Three beautiful new Quilt Patterns 10c. One doz. 25c. all different, sent by return mail with catalogue of specialties. MODERN ART COMPANY, New Haven, Conn.

FILL YOUR OWN TEETH Instructions free. Union Dental Co., Chicago, Ill.

GUITAR self taught, without notes, 50 cts. BANJO, \$1. Circular and cat. of instruments FREE. A. PARKER, 85 Fifth Ave. Chicago.

OUR DIP Needle Compass is guaranteed the best instrument out for Miners and Prospectors use. B. G. Stauffer, Bachmanville, Pa.

INVISIBLE INK For love letters, secret correspondence, etc.; outfit and samples, 25c. P. O. Box 592, Chicago, Ill.

THIS SOLID GOLD GENUINE DIAMOND RING FREE to any girl who will do a few hours work showing our new goods to their friends. **SEND NO MONEY.** L. M. ASSOCIATION, 269 Dearborn St. Chicago, Ill.

DETECTIVES

Wanted in every county to act in the Secret Service under instructions from Capt. Grannan, ex-Chief Detective of Cincinnati. Experience not necessary. Established 11 years. Particulars free. Address Grannan Detective Bureau Co. 44 Arcade, Cincinnati, O. The methods and operations of this Bureau investigated and found lawful by United States Government.

Cut this Out and return it to us with 10c silver or stamps, and we will insert your name in our Agents' Directory. You will get thousands of Papers, Cards, Magazines, Novelties, etc., from publishers and manufacturers who want agents. **DON'T MISS THIS** but send at once, you will be well pleased. **WESTERN MAIL CO. St. Louis, Mo.**

10 CENTS (silver) pays for our handsome PEOPLE'S JOURNAL one year, on trial, and your address in our "AGENTS' DIRECTORY," which goes whirling all over the United States to firms who wish to mail FREE sample papers, magazines, books, pictures, cards, etc., with terms, and our patrons receive bushels of mail. Greatest bargain in America. Try it; you will be pleased. **T. D. CAMPBELL, X 604, Boyleston, Ind.**

FAMILY RECORD Lord's Prayer, Beatitudes, Life of Christ, 4 Beautiful Pictures, each 16x22, in colors, upon a background of Pure Gold. Price 50 cents each, but to anyone who will return this advt. with order, 35c.; 6 for \$1.25; 12 for \$2.00; 25 for \$4.00. 100 for \$13.50; 500 with watch and chain, \$25. All charges prepaid and all unsold goods taken back, and money refunded. **STANDARD SUPPLY HOUSE, Chicago.**

PRINTING OUTFIT 15c COMPLETE, 4 alphabets rubber type, type holder, bodie, ink, ink pad and T-wipers. Put up in neat box with directions for use. Satisfaction guaranteed. Worth 50c. Best Line Marker, Card Printer, etc. Set names in 1 minute. Prints 500 cards an hour. Sent postpaid 15c; 2 for 25c. Cat. free. **H. H. INGERSOLL & BRO. 65 Cortlandt St., N. Y. City.**

WE WANT YOU

to act as agent in your locality for the fastest selling article of the times. Everybody admires and commends, the great majority buy. There is a place for one in every home. You don't have to hunt for customers. If you want

To Make Big Money

investigate this AT ONCE before some other person secures your locality. Time is money, always; it means lots of money in this business. A big bonanza for all agents; experience unnecessary, any one can sell it for it tells its own story. Agents are now making from

\$10 to \$15 a Day

because they make quick sales, many sales and make them easily. Sales are increasing and will be enormous during 1893. The World's Fair helps our agents, advertises their work, creates customers. Agents choose their own territory, are offered big commissions

And a World's Fair Trip Free.

Write at once for confidential terms to you on "The Greatest Money-Maker for 1893." To secure the most liberal terms and promptest attention be sure to address your letter to

MFG. DEPARTMENT,
Mast, Crowell & Kirkpatrick,
Springfield, Ohio.

The Globe Card Co. has always been noted for promptness in filling orders and for excellence of cards and premiums. This year to introduce our goods in thousands of new homes, we make a grand growing offer: For 10 CTS. we will send 15 lovely Hidden Name Cards, name on, 1 Magic Name Reveal, 1 Oracle of Events (answers all questions), a large lot of Album Verses and Couplets, Agents' complete outfit, and this lovely GOLD Ring. Don't you find this more than worth the price? Send for this GLOBE RING GOLD CARD CO. Box 10, Centerbrook Conn.

\$1.98 FREE
To Every Reader of This Paper No Money Required. Cut this out and send it to us with your full name and address and we will send you this elegant watch by express for examination, and if you think it equal to any \$10.00 watch, pay our sample price, \$1.98, and we will send you a new one if not satisfactory, and if you sell six we will give you one free. Write Address as we shall send out samples for 60 days only. **—THE— NATIONAL MFG. AND IMPORTING CO. 334 Dearborn St. Chicago, Ill.**

GIVEN AWAY
Board, with men; Checker Board, with men; Fox and Geese Board, with men; Nine Men Morris Board, with men; Mystic Age Tablet, to tell the age of any person, young or old, married or single; Real Secret of Ventriloquism, whereby you can learn to make voices come from closets, trunks, etc.; This secret is worth \$100.00; Language of Flowers; Morse Telegraph Alphabet, complete; Game of Forfeit, for two or more. Will please whole family; Parlor Tableaux, Shadow Pantomime, Shadow Buff, Clairvoyant, how to become a medium; Game of Fortune, amuses old and young; Album Writer's Friend, 75 select American. It will amuse and instruct the whole family circle for months. Remember that our price is only 15 cents, which includes a three-months' subscription to our great paper. **YOU WILL GET ALL THE ABOVE FOR 15 CENTS.** We will send two lots and a six-months' subscription for 25 cents, or four lots and a year's subscription for 50 cents. Send stamps. Will forfeit \$100.00 if we fail to do just as we advertise. Send now and be happy! Address: **AMERICAN NATION PUE. CO., Boston, Mass.**

Circular Distributors Wanted.

Publishers, Patentees, Manufacturers, etc., are daily requesting us to supply the addresses of reliable circular distributors, bill posters, etc. Brunn's success is marvelous, and will open up in 200,000 AGENTS' HERALDS next issue, to be mailed to business men, new, profitable and permanent employment to one man, woman or youth in every town and hamlet in the U. S. and Canada. "The early bird catches the worm." We want a few such ads. as Brunn's (sample below) to start with in this month's MAMMOTH editions of Agents' HERALD.

BRUNN Nails up signs, distributes circulars, papers, samples, etc., throughout Blackhawk and surrounding counties at only \$3.00 per 1000. Address W. H. BRUNN, Waterloo, Ia.

Brunn paid \$2.40 to insert above 4 lines, June '90. He began during the summer. That ad paid then, is paying yet. He has been kept constantly busy, employs three men to assist him, clearing on their labor from \$10 to \$15 a day distributing circulars at \$3.00 per 1000 for many firms, who saw his ad. in THE HERALD. It costs every firm at least \$10 in postage alone to mail 1000 circulars. A saving to each firm who employs you of \$7 per 1000. Ten firms may each send you 1000 at the same time, making 1000 packages of 10 each, for distributing which you would promptly receive \$20, \$15 in advance and \$15 when work is done. Parents make your boys a present. Start them in this growing business. Begin this neat business before some one in your county gets the start of you. "Come in on the ground floor." Instructions How to Conduct the Business Free, to each distributor ONLY, who sends us \$2.40 cash or postage stamps for a 4 line "ad."

AGENTS' HERALD, No. 2 S. 5th Street, Philada., Pa.

Our Miscellany.

"TEACHER—"Now, Johnny, tell us what you know about Cressus."

Johnny—"Please, mum, 'ndes wear 'em in deir pants."—*Puck*.

RID YOURSELF of the discomfort and danger attending a Cold by using Dr. D. Jayne's Expecto-rant, an old established curative for Coughs, Sore Throat and Pulmonary affections.

"So you have a new servant girl," said one housewife to another.

"Yes."

"How does she like you?"—*Washington Star*.

RUINS OF THE TEMPLE OF BAAL.

There rises a huge wall, seventy-five feet high, inclosing a square court, of which the side is four hundred and seventy feet long. Part of the wall, having fallen into ruins, has been rebuilt from the ancient materials, but the whole of the north side, with its beautiful pilasters, is perfect.

As the visitors enter the court they stand still in astonishment at the extraordinary sight which meets their eyes, for here, crowded within those four walls, is the native village of Tadmor. It was natural enough for the Arabs to build their mud huts within these ready-made fortifications, but the impression produced by such a village in such a place is indescribably strange. The temple, so to speak, is eaten out at the core, and little but the shell remains. But here and there a fluted Corinthian column or group of columns, with entablature still perfect, rises in stately grace far over the wretched huts, the rich, creamy color of the limestone and the beautiful moldings of the capitals contrasting with the clear blue of the cloudless sky.

The best view of the whole is to be obtained from the roof of the naos, which, once beautiful and adorned with sculpture, is now all battered and defaced and has been metamorphosed into a squalid little mosque. To describe the view from that roof were indeed a hopeless task. High into the clear blue air and the golden sunshine rise the stately columns; crowded and jumbled and heaped together below, untouched by the gladdening sunbeams, unrefreshed by the pure, free air, lies all the aqualor and wretchedness of an Arab mud-hut village.—*Blackwood's Magazine*.

SHE RECALLED McGINTY.

One day in my wandering along the Clover fork of the Cumberland river I stopped at a farm-house to get dinner, and as I sat in the shade of the porch waiting, I was whistling for lack of thought and something else to do, the reading supply of the establishment being painfully short. My hostess was knocking around inside, getting dinner ready, and evidently heard my sweet and gentle melodies, for she stuck her head out of the door.

"Do yer whistle by note, mister," she inquired, "er jist simultaneous like?"

"Mostly simultaneous like," I responded, laughing.

"I never heard them chunes afore," she went on, "an' I kinder had an idee they wuz book chunes got out fer extr'y."

"Oh, no," I assured her, "they are merely little bits from the popular airs of the day, that everybody whistles."

"S that so?" she asked in surprise. "I hain't never heerd 'em up this away. What's ther names?"

"Well, 'Comrades,' 'Annie Rooney,' 'Maggie Murphy's Home,' 'Ta-ra Boom,' 'McGinty,' and so forth. Didn't you ever hear of McGinty?"

She became thoughtful.

"What's the name?" she inquired. "Seems kinder like ez I knowed it."

"McGinty," I repeated slowly, and her face brightened.

"Oh, yes," she exclaimed, "I knowed I knowed it, but somehow I couldn't quite set it whar it belonged. Ain't he the feller that they named the tariff after?"

I said it was, and went in to dinner.—*Detroit Free Press*.

RAZOR-BACK HAMS.

Poets have sung of the flavor of the genuine southern ham. This toothsome meat comes from the despised "razor-back," an animal that has no time to put on fat, so he puts on extra slices of lean until the acorns fall, and then he fattens just right to fit an epicure's mouth. Bill Nye thus says of him:

"I shall never speak lightly of the ridge-rooster again. He is subject to none of the diseases peculiar to corpulence. He breathes good air, eats the pokeberry in midsummer till his ceilings and wainscottings are as red as a Chinese demonstration; then he eats the wild cucumber which falls from the cucumber-tree after the squirrel has had all it wants, and the result is that by November he is ready to take a course of corn in the ear or elsewhere, and winds up at the glorious Yuletide when the hollyberries are red and the mistletoe and persimmons are both ripe, still slender and girlish in figure, but as tender and juicy as a Brazil nut."

CATARRH CURED.

A clergyman, after years of suffering, from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self-addressed stamped envelope to Prof. J. A. Lawrence, 88 Warren street, New York, will receive the recipe free of charge.

SHE WAS GRATEFUL.

We were nearing Jacksonville, Florida, after the long trip from New York. The porter had finished brushing off a mother and her four children, each of whom had demanded attention every fifteen minutes, when the woman turned and said:

"You have been very attentive to us during the trip, and I wish to reward you."

"Yes 'um."

"What is your name?" she asked, as she took out pencil and note-book.

"William White, mum."

She wrote for a minute on one of the leaves of her book, and then tore it out and handed it to him with the remark:

"A colored man who is ambitious to get along will always find friends."

I caught him in the vestibule two minutes later and asked to see the paper. It read:

"MR. PULLMAN:—Your man, William White, has been very attentive to me and my children, and I would recommend that you raise his salary and let him know that you fully appreciate his efforts. Mrs. S. B.—"

I read it aloud to the porter and then looked at him. He turned a sort of gray and gasped for breath, and it was a long minute before he could ejaculate:

"Befo' de Lawd! But I dun thought dat was a fifteen-dollar check on some bank in Jacksonville. Hu! Shoo! Wall, of all the delaterious obnoxiousness I eber did dun meet up wid in all my life, dis captivates de pinacle!"

SOW A LITTLE NITRATE OF SODA ON GRASS THIS FALL.

The charm of a lawn consists largely in its dark green color, luxuriant growth and freedom from weeds. Many try to secure this result by covering their lawns with rotten manure in the fall or early winter. A much pleasanter method is to sow a mixture of equal parts nitrate of soda, superphosphate and muriate of potash on the lawn this fall, and then next spring give another dressing of nitrate of soda. Apply this fall the above mixture at the rate of half a ton per acre, or a small handful to each square yard. Sow it broadcast, as evenly as possible. In the spring sow three hundred pounds of nitrate of soda per acre, broadcast, or a small handful to each three or four square yards of lawn. The above treatment will not only greatly improve the lawn, but will also give increased luxuriance to the trees, shrubs, roses and flowers that may be on the lawn.

For pasture land many will think they cannot afford to be so liberal in the use of fertilizers. Perhaps not. But there is great pleasure in seeing a closely-cropped pasture clothed with dark green, luxuriant grass that looks fresh every morning and smiles in the sunshine during our hot August weather. We believe there is profit as well as pleasure in such a field of grass. Put on a good, liberal dose of nitrate and superphosphate and potash this fall and an additional dressing of nitrate of soda in the spring.—*Joseph Harris*.

HERE'S TO THE CORN TASSEL.

The people of this country, and especially the ladies, have for years been voting and expressing themselves on the subject of the selection of a national flower. Edna Dean Proctor comes forward now and claims that tasseled corn is better entitled to this distinction than anything else which blooms on our soil. The various other flowers, chosen from time to time, have each their claim, but the significance of the corn tassel so overtops everything else that we are inclined to think Miss Proctor is about right in her choice, which she emphasizes in the following glowing words:

"For the rarest boon to the land they loved
Was the corn so rich and fair;
No star nor breeze o'er the farthest seas
Could find its like elsewhere.
The rose may bloom for England,
The lily for France unfold;
Ireland may honor the shamrock,
Scotland her thistle bold;
But the shield of the great republic,
The glory of the West,
Shall bear a stalk of the tasseled corn,
Of all our wealth the best.
The arbutus and the golden rod
The heart of the North may cheer,
And the mountain laurel for Maryland
Its royal clusters rear;
And jasmine and magnolia
The crest of the South adorn,
But the wide republic's emblem
Is the bounteous, golden corn!"

—*National Stockman*.

ADVICE TO YOUNG MEN.

"First, be industrious. Second, have a settled plan. Third, be everlastingly persistent in both. These applied to fair ability will win, for all legitimate business is profitable in the end. There is only one class of men who die rich. They are those who always save something out of what they earn. Most men who have the ability to save die rich. Not many die rich who make great sums of money fast. They may make ninety-nine successful speculations, but in the hundredth one, when the risk is in proportion to their daring and their wealth, they lose it all. Mr. Cook, financial agent of our government, once told me that the largest check he ever saw was one drawn by Daniel Drew for \$7,000,000 in payment for government bonds. I saw a red auction flag over Daniel Drew's door."—*Leland Stanford*.

APPLES AS FOOD.

Chemically, the apple is composed of vegetable fiber, albumen, sugar, gum, chlorophyll, malic acid, gallic acid, lime and much water; and the German analysts claim that the apple contains a larger percentage of phosphorus than any other fruit or vegetable. This phosphorus is admirably adapted for renewing the essential nervous matter—lethicin—of the brain and spinal cord. It is, perhaps for the same reason, rarely understood that the old Scandinavian traditions represent the apple as the food for the gods, who, when they felt themselves to be feeble and infirm, resorted to this fruit for renewing their powers of mind and body.

Also, the acids of the apple are of signal use for men of sedentary habits, whose lives are sluggish in action, these acids serving to eliminate from the body noxious matters which, if retained, would make the brain heavy and dull, or bring about jaundice or skin eruptions and other allied troubles.

It is also a fact that such fresh fruits as the apple, the pear and the plum, when taken ripe and without sugar, diminish acidity in the stomach, rather than provoke it. Their vegetable salts and juices are converted into alkaline carbonates which tend to counteract acidity. A good, ripe, raw apple is one of the easiest of vegetable substances for the stomach to deal with, the whole process of its digestion being completed in eighty-five minutes.

EIGHTY-EIGHT DEGREES BELOW ZERO.

The coldest known spot on the earth's surface is on the eastern slope, a shelving mountain that runs down to near the water's edge, on the eastern bank of the Lena river, in northeast Siberia. The spot in question is nine and a fourth miles from Serkerchoof, about latitude sixty-seven north, and longitude one hundred and thirty-four east. Dr. Woikoff, director of the Russian meteorological service, gives the minimum temperature of the place as being eighty-eight degrees below zero. It is a place of almost perpetual calm. In the mountains near by, where windy weather is the rule, it is not nearly so cold.

DIPLOMACY.

"Johnny," said his mother, "do you know who ate those cookies I left in the pantry?"

"I do, mamma," replied the noble boy, his eyes filling with tears, "but it would not be manly for me to tell."

And that is how it came that Johnny's brother received two undeserved spankings—one for the cakes he did not steal and another for his truthful denial.—*Indianapolis Journal*.

THE WISE VIRGINS.

The wise virgins of the Bible story kept their lamps filled and burning. The wise virgins of this generation keep the gas turned down, and they get in to the wedding feast quite as early.—*Puck*.

RESIGNATION.

Van Gilding—"Could you marry a man who is your inferior?"

Pranella—"I suppose I shall have to."—*Life*.

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A DIFFERENT BRAND.

"You are chewing the cud of fancy, I suppose?" said Mr. Bleeker, as he approached Miss Wabash, who had been sitting alone.

"No," replied the fair Chicago maiden, as she moved something about in her mouth: "this is just ordinary plain gum, Mr. Bleeker."—*Judge* (New York.)

SOME new ideas have lately attracted attention in the matter of pavements. Among these is the paving of a bridge by a German engineer with india-rubber, the result having been so satisfactory as to induce its application on a much larger scale, a point in its favor being that it is more durable than asphalt, and not slippery. In London, a section of roadway under the gate leading to the departure platform of the St. Pancras terminus has for some time past been paved with this material, with the effect of deadening the sound made when being passed over on wheels, besides the comfortable elasticity to foot passengers. Another material which is being satisfactorily introduced for this purpose is composed of granulated cork and bitumen pressed into blocks, and which are laid like bricks or wood paving, the special advantage secured in this case being that of elasticity; in roadways it furnishes a fine foothold for horses, and at the same time does away, to a great degree, with the noise which commonly accompanies city traffic. In Australia this method has been resorted to with excellent results.

A one-dollar bill is most convenient for mailing, and for one dollar your subscription to this journal will be extended two years and you will receive two of the valuable Free Gifts offered on supplement sheet with this issue.

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Farm Cleanings.

THE FUTURE OF WOOL.

ONE of our Pennsylvania exchanges says that fearing the free importation of wool, the wool growers of the county of Washington, Pennsylvania, will likely quit sheep husbandry. Nearly half a million sheep were kept in that county, and about 3,000,000 pounds of wool were produced, bringing about \$1,000,000 when wool sold at 33 cents. In view of free wool from abroad, the growers anticipate a decline in the price, which will render its production in this country absolutely unprofitable, as the same grade of Australian wool can be bought in the London markets at 16 cents, and laid down at New York at the additional cost of 1 cent per pound. The wool men think that within two years the price will fall to 17 cents, and even next year, before the passage of the free-wool bill can be secured, the price will be materially affected by the contemplated reduction.

On account of this many of the large wool growers of the county are making arrangements to quit the business. Two of them stated they will sell their flocks at once. About nineteen farmers out of every twenty within the county are engaged, more or less, in wool growing, and the probable destruction of the industry cannot fail to be a serious matter to them and to the whole community. The farmers have always counted on the "wool money" to pay taxes and settle bills, as the money from this source came in a lump. A general abandonment of sheep husbandry will inevitably cause a decline in the price of farm lands, and it is feared will affect the other branches of business in the county.

HOW I MISSED GETTING A MERINO RAM.

One season I was a little earlier in reaching Vermont than the most of the western buyers, and soon found out where the best rams were, and the run of prices, too. A marvelous ram lamb was reported, almost in whispers, down at New Haven. Of course the lamb had to be seen; and he was indeed a good one from top to bottom. The trouble was, he seemed too good, and there was a suspicion that he sucked two ewes, and possibly was stuffed in the barn besides. While studying the lamb to my satisfaction, he dashed across the lot and sucked a ewe that seemed hardly good enough to be the mother; so we concluded this was the foster mother, or one of them. We watched him three hours, but he would not get hungry and we had to go away. The price of the ram lamb was \$25. Cheap as dirt, we knew, but if he sucked two or three ewes we were afraid to buy until it was settled that he was what he seemed. In two or three days we drove over again to see the lamb. The price had gone up to \$50, and we were all scared off again.

By this time Vermont was full of buyers from the West, and prices went up wonderfully, especially for really good things. Inside of two months that ram lamb became famous, and a half interest in him was sold for \$500 in cold cash, and was worth the money to the western breeder who got him.

R. M. BELL.

PRESERVING EGGS.

It is oftentimes desirable to pack away eggs while they are cheap, for use during the winter. While we would not advise selling packed eggs, the following plan has given good satisfaction for keeping eggs for home consumption:

Wrap each egg separately in paper and pack tightly in a box just large enough to have it full to the top. Fasten a lid on with screws, and turn the box partly around every day, and if kept in a cool place, just above the freezing point, they can be kept for months and can hardly be distinguished from the fresh-laid article.

When commencing to use, fill the box with packing to keep it full, and keep on turning, and the last layer of those eggs will be as good as the first.

J. A. SHAFER.

HARNESS AND BUGGY—FREE OFFER.

A \$10 set of harness for only \$4. A \$100 top buggy for only \$49.75. You can examine our goods at your place before paying one cent. Send for illustrated catalogue, giving prices to consumers that are less than retail dealers actual cost. Send address and this advt. to Alvah Mfg. Co., Dept. B 23, Chicago, Ill.

We wish a Happy New-Year and give an elegant Free Gift to everyone sending 50 cents for a year's subscription to this paper. The "Three Gems," Free Gift No. 2, described in the supplement sheet, are perfect beauties. If you put off getting them you will regret it.

COLTS IN WINTER.

The colt forced to live his first winter on corn-stalks and keep warm by exercise will not make a valuable horse. He needs exercise and shelter. He cannot be treated the same as a fully matured animal, that simply needs to live; he must grow. The shelter need not be particularly warm, but should have a tight roof and no cracks in the side to permit drafts. Hang the doors so as to fit tightly, and then close them every night. Have the manger and feed-boxes low enough to be reached easily. Cover the floor with a thick layer of straw; nothing gives an animal more comfort than a good, warm bed. During the day, unless it be very cold or stormy, the colt is better outside.

We want young horses with muscle and bone; hence, exercise during the winter must not be overlooked. If they are fed at the same time every night they will usually come up to the stable of their own accord; however, if they should not, go and get them. The loss of feed and exposure may bring on coughs, colds and distemper. Careful wintering is most important to all young stock, and more especially to horses. More damage can be done in one winter by neglect than can be repaired in the lifetime of a horse.—Orange Judd Farmer.

DONNELLY CALLED DOWN.

A good story is told on Ignatius Donnelly. While addressing an audience in the northern part of the state, Mr. Donnelly compared, according to his own logic and reasoning, the condition of the farmers of Minnesota with those in several New England states.

"For instance," said he, "you farmers get only about \$3 for your sheep, while in Pennsylvania and Massachusetts the agriculturist receives \$7. And again, you are paid, after the shortage, elevator charges and other expenses are deducted, only about 40 cents a bushel for your wheat, while in these states I have named the farmer gets \$1 a bushel."

"That's no argument at all," remarked a mossback, interrupting the speaker. "If I had Lake Minnetonka in Hades I could get \$5 a glass for the water."—Minneapolis Tribune.

EXTERMINATING FLEAS.

Fleas—those that infest domestic animals—are hard to get rid of after they once get into the house in warm weather. Cats and dogs are great flea disseminators and they should not be allowed to come into the house in summer-time. The following is recommended as a magic exterminator: Take half a pound of Persian insect-powder, same quantity of finely-powdered borax, one ounce oil of cedar, quarter of an ounce of oil of pennyroyal, properly put up by a druggist; close the room up tight, sprinkle this powder on the carpet, furniture and beds and keep closed all day or night; then open all windows and air thoroughly, and in twenty-four hours there will be no fleas, flies or mosquitoes left. The rooms then may be swept and dusted. It is claimed that this is also an efficient exterminator of roaches and water-bugs.

PRESERVING BUTTER.

Two-pound lots can be treated just as well as, perhaps better than, ten-pound lots. The butter should be put into the bags in the granular stage. "Matting" is equivalent to solidifying, or, perhaps, massing together would be a better way to put it. The grains of butter individually should be made as hard and solid as possible; but must not be allowed to get together into lumps. The bag should be loosely tied up, the granular form being preserved as much as possible.

I don't think there is any likelihood of the butter becoming too salt through leaving it in the brine; rather the other way about it; it is not salt enough for market requirements, and more has to be added when taken out and made up for sale. The brine should be made with as much salt as the water will take up. It is immaterial whether hot or cold water is used; the surplus salt will remain at the bottom of the vessel, and no amount of stirring will cause the water to take up more than a certain quantity; but if it be not stirred, the brine will not become strong enough. Of course, the brine must be quite cold when the butter is put into it. The butter may be left in the brine for three to four months.—Farm and Home (England).

A large cow always consumes more food than a small one, but does not always produce more milk and butter. Upon the whole, the chances are most in favor of the small cow paying best for her board.

FARM NOTES.

If you feed corn-fodder dry run it through a cutting-box, or break the butt ends of the stalks with a hatchet, otherwise you will have much trouble in handling the manure.

Some men think it too expensive to build sheds for machinery. They do not realize that it is more expensive to do without them. It isn't two weeks' running every year for five or six years that wears out a binder; it is the exposure to changeable weather.

We now consume in the United States within eight per cent of our entire food production. If we would manufacture all our cotton and all our wheat, it would give employment to enough more people to consume this surplus, leaving absolutely nothing for export.

A Minnesota farmer desires to sell his flock of 480 sheep for a reason not often given. Having kept a flock of about one sheep to the acre for twenty years past, his land has become so rich that he cannot grow flax, wheat, or any of the small grains, though it grows good crops of corn and roots.

At one factory in Frederick county, Maryland, this season 4,000,000 ears of corn, beans, etc., were put up. This is the largest individual concern in the world, and uses the yield of about 4,000 acres. In connection with the factory are several silos, having a capacity of from 1,500 to 2,000 tons. During the busy season about 1,000 hands are employed, half of whom are females.

Another argument in favor of better roads comes up in the report of the state dairy commissioner of Iowa, who says many of the creameries were obliged to close up last spring on account of bad roads, while others could only handle a part of their territory, which decreased the output by thirty per cent.

The manure from animals that are wintered in the barn-yard and fed mainly on the straw stack, cannot be taken into serious account as a matter of profit. Nor will the animals themselves repay much even for such inexpensive keep. To return any value, both the stock and manure require housing and good feed.

It was the year 1630 that commemorates the first occasion of a public thanksgiving in Massachusetts. The date had already been appointed for a season of general fasting, but, unfortunately, provisions ran very low in February. No cargoes had arrived for a long time. Our forefathers apprehended little difficulty, however, in keeping the prescribed fast. On the morning of the day a ship appeared in the harbor laden with food. It was unanimously decided to change the fast day to a feast day.

An exchange says that it is easier to raise ten bushels of berries and get them to market than it is to raise ten bushels of wheat, and the berries will usually sell for four times as much as the wheat will. We believe this to be an exaggeration, although we think the berries are likely to be more profitable than wheat, if given good ground, well manured, well cared for and well marketed. Sometimes a good salesman is as important as a good crop grower.

There would be far less favor shown to the single tax theory of Henry George, said to be levied only on land, if it were better understood that not the landlord, but the tenant, usually pays the tax on real estate. If the tenant be also the owner, he so far as possible shoves the tax over on the laborer he employs, paying it less than he otherwise would. In the end it is the laborer and the producer who pays all taxes. Idleness pays nothing, for it has nothing to pay with.—American Cultivator.

The one thing which has impressed us more forcibly than all else is the fact that weeds grow fast and hired men work slow. We were obliged to keep the cultivator going in our corn and potatoes through the haying and harvest season, and we believe that no investment made this year paid as well in clear profit as this labor. Our observation for a number of years among the farmers of Michigan leads us to believe that the cultivated crops of the state might be increased fully one third in yield by more thorough and systematic cultivation.—Grange Visitor.

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Smiles.

THE MAN WHO KNOWS IT ALL.

I love the man who knows it all,
From east to west, from north to south;
Who knows all things both great and small,
And tells it with a tireless mouth;
Who holds a listening world in awe
The while he works his iron jaw.

Ofttimes in evening's holy calm,
When twilight softens sight and sound
And zephyr breathes a peaceful psalm,
This fellow brings his mouth around,
With its long gallop that can tire
The eight-day clock's impatient ire.

His good, strong mouth! He yields it well.
He works it just for all it's worth;
Not Samson's jawbone famed could tell
Such mighty deeds upon the earth.
He pulls the throttle open wide
And works her hard on either side.

Uphill and down, through swamp and sand,
It never stops, it never halts.
Through air and sky, o'er sea and land,
He talks, and talks, and talks, and talks,
And talks, and talks, and talks, and talks,
And talks, and talks, and talks, and talks.

Good Lord, from evils fierce and dire
Save us each day, from fear and woe;
From wreck and flood, from storm and fire,
From sudden death, from secret foe;
From blighting rain and burning drouth,
And from the man who plays his mouth.

—Robert J. Burdette.

TOO MUCH THE MATTER WITH HER.

ACCORDING to a musical company, a lady from the rural districts took her daughter to town, and after consulting a number of professors respecting her musical abilities, returned home very much discouraged, and reported to her husband the result of her expedition, as follows:

"The first professor said that Almiry sings too much with her horax. If she keeps on, she will get digestion on the lungs. He said she ought to try the abominable breathing. Then the next teacher told her she ought to sing with her diagram, and not smother her voice in the sarcophagus. The next, he poked a looking-glass down her throat and said that the phalanx was too small, and the typhoid bone and the polyglottis were in a bad way; and I never knew that Almiry had so many things the matter with her, and I'm afraid to let her sing any more."

WOMAN GRAMMATICALLY CONSIDERED.

The following are some of the general rules for considering woman grammatically, as laid down by the speaker:

- As a noun she is in the objective case.
- As a pronoun she stands for herself.
- As a verb, imperative mood, present tense, when she desires you to serve her, but subjunctive mood and future tense when you ask her to marry you.
- As an adjective she is the superlative degree.
- As a conjunction she is a failure, for her sentences are not connected.
- As an exclamation—perennial.
- I cannot say she is an adverb, for she does not modify anything.
- As an article, indefinite, but worth the world to any man.
- I love her in any mood or case, especially the indicative mood and possessive case, but always in the feminine gender.—Louisville Commercial.

ORIGINAL?

Originality is a difficult attainment, or perhaps we should say, a rare gift; and often a man himself cannot be sure whether he is inventing or repeating.

The New York Tribune reports that a manufacturing firm offered a prize for the best original motto for a pen. An Iowa man promptly sent them, "The pen is mightier than the sword," with a request that they would forward the prize by the next mail.

The head of the house wrote a humorous reply, asking the claimant if he could prove himself the author of the saying. The Iowa man, evidently an honest soul, at once responded:

"I can't say for certain whether I read it or just thought it. I've read McGuffey's readers and Kidd's 'Elocution' and the Proverbs in the Bible. If it isn't in those books it is original, and you will please send me the money."

GOT HIS CARDS.

Tommy had just returned from Sunday-school, and his mother asked him if he had been a good boy.

"Not very," he replied.

"Then you didn't get a good-behavior card?"

"Yes, I did. I saved the money you gave me for the heathen, and bought two cards with it from the other boys."

What papers shall we take this year? Why, the FARM AND FIRESIDE and LADIES HOME COMPANION, of course, or at least one of them, for we get both the paper and a handsome gift for the regular subscription price. Better papers and more liberal offers than you can get anywhere else. Don't miss reading the offers on the supplement sheet.

OUR LIMITED WISDOM.

All the family were reading in the library one evening. Mr. May had the evening paper, which he put down once to look up a reference in the encyclopedia. Mrs. May had a French art book, and consulted her French lexicon frequently. George asked his mother the meaning of several words in the story-book over which he was poring. Eva, aged five, sat with George's Companion upon her lap.

"Reading, too, pussy?" asked her father.

"Yes, sir."

"Why, Eva May, you can't read!" said her brother.

"Yes, I can. I can read 'dog' and 'cat' and 'boy' and lots of words when I find them. I read the words I do know, and that's all that any of you are doing," returned the observant little woman.—Examiner.

FOUR FATHERS.

Josie's mind became exercised upon the subject of her forefathers.

"Four fathers," she soliloquized; "I am sure I can't think who they are. There's father and my two grandfathers, that's plain enough. But who can the other be?"

Here she twitched her mother's dress inquiringly, but no immediate answer being given, she solved the problem for herself with a triumphant shout:

"Oh, I know! It is our 'Our Father who art in heaven.' I have got four fathers."

And she walked off, disdaining further information on the subject.

NO WONDER.

Sea-sick passenger—"What is that person doing on deck above my cabin?"

Wife—"Heaving the lead."

S. S. P. (resignedly)—"Well, if lead comes up with some people I should not complain because the light things I eat will not stay down."

LET WELL ENOUGH ALONE.

"I've got a tongue-tied child, doctor. Can anything be done for it?"

"Boy or girl?"

"Girl."

"Humph! I think you'd better not interfere with the workings of Providence, ma'am."

LITTLE BITS.

Little girl—"Why do the flies bite so to-day?"

Mother—"It's going to rain."

Little girl—"Well, they might know 'tain't my fault."

May—"Mamma, don't Christmas never change its name?"

Mamma—"No, my dear."

Why?"

May—"Well, I'd think it would get awfully tired of always being called Mary."

Customer—"These shoes don't fit at all. What is the matter with them?"

Clerk—"They are on a D last."

Customer—"That was what I would have said if I hadn't been a woman."

It was four-year-old Sammy's first appearance at a full-dress reception. "Mamma," said he in a horrified whisper, as the first arrival swept grandly into the parlor, "isn't she looking for the bath-room?"

"Johnny, here you are at breakfast with your face unwashed." "I know it mamma; I saw the little things that live in water through papa's microscope last evening, and I'm not going to have them crawl in' over my face with their funny little legs."

"I paid the man for finishing the cistern this morning, Josiah," said Mrs. Chugwater, "and it took the last cent there was in the house."

"Never mind that, Samantha," replied Mr. Chugwater, soothingly, "we've got something for a rainy day at last."—Chicago Tribune.

A girl of thirteen years was left in charge of her three-year-old sister for one night of her mother's absence. During the night the little one waking with her head at the footboard, indignantly exclaimed: "This is a fine way to tate tare of me; let me sleep all night wrong side out!"

Several little Sabbath-school pupils were riding together in a carriage. Happening to pass an apple-tree, Nellie asked, with a serious face: "Auntie, how did God make apples?"

To which, as quick as thought, little Ida replied: "Just like he made light. He said, 'Let there be apples,' and there was apples."

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Gleanings.

JAPANESE DENTISTRY.

WHILE Mr. Hubbard was minister to Japan, I visited that country and spent a pleasant week with him. One day I was troubled with the toothache, and Mr. Hubbard took me to a dentist and explained to the saddle-colored operator that I wanted the grinder extracted. I was placed in a bamboo chair and tilted slightly back. The dentist examined my teeth, talking volubly meanwhile to Uncle Sam's representative. Suddenly his thumb and forefinger closed on the troublesome tooth, and before I had the faintest idea of what was going to happen, he lifted it out and held it up before me, smiling at the same time that vacant smile peculiar to the children of the Orient.

"You were waiting for the forceps, were you?" said Minister Hubbard with a laugh. "They don't use 'em here. Look at this. Here is a young Jap taking his first lesson in dentistry."

A twelve-year-old Japanese boy sat on the floor, having before him a board in which were a number of holes into which pegs had been tightly driven. He was attempting to extract the pegs with his thumb and forefinger. Mr. Hubbard explained that as the strength of this natural pair of forceps developed by practice, the pegs would be driven in tighter. After a couple of years at peg-pulling the young dentist would graduate and be able to lift the most refractory molar in the same manner that he now lifted wooden pegs.—*St. Louis Globe-Democrat.*

A STITCH IN TIME.

It pays better to spend an hour every now and then going over one's gowns, freshening them up and giving the little touches here and there that keep their prettiness alive, than to wait until they are all going to pieces, and then have to take a day and devote yourself to mending them. You often can't do much for them at such a late hour, for the tiny hole or rip will have frayed all out of shape, or the dangling tape will have pulled the plaits away from all semblance of proper hanging. Don't throw them over the backs of chairs when you come in; they will wrinkle and muss up horribly; waists especially, for they are a bit warm when you take them off, and so more susceptible to new and ugly creases.

Give frocks a good shake and hang them up, dust off hats and bonnets before putting them in their box, and have a bit of a place for ribbons and chiffons, where they won't get all mixed up with button-hooks and hair-brushes. Alcohol and water is better than anything ever advertised for taking dirt out of clothes. Grease, sugar, paint, everything yields to its almost magic power, and there is left no unpleasantly suggestive odor behind, as in the case of almost all patent cleansers.—*Fashion article, American Dairyman.*

BEST WAY TO CLEAN MIRRORS.

The best way to clean mirrors or any glass, such as that in picture-frames, the bright polish of which we wish to preserve for a length of time, is to wash them lightly with a sponge and clean water; then with another sponge rub them over with spirits of wine, after which dab them lightly with some whiting tied up in a muslin bag, and finish with an old silk handkerchief. This sounds troublesome, but in reality is very quickly done, and does not entail half the labor in polishing that chamois leather and water do, besides keeping the glass, etc., bright for a much longer time. A quart of spirits of wine will last long.

China which has been lying aside and got smoked can be cleansed by rubbing salt on it when washing it. This will effectually remove the smoke stain without hurting either the colors or the glaze.—*Domestic Monthly.*

BITING THE LIPS.

"If girls only knew," remarked a woman eminent in her profession as a physician, "how they disfigure themselves by continually biting their lips, I think that they would make the effort to break themselves of the habit.

"In infancy the red line at the lower edge of the lips is very clearly defined. Constant irritation with the upper teeth sometimes extends the red color for half or three quarters of an inch below the original line and destroys the symmetry of the mouth. The lip becomes thickened and sometimes in-

flamed; frequently there are deep creases or cracks, and the wind and the sun burn and discolor it until it is almost a positive deformity.

"An ugly mouth is often the result of a habit which has its rise in the possession of a dimple. Who has not seen girls, and even middle-aged women, in street-cars making themselves absolutely ridiculous in their efforts to create a dimple by biting their lips? Every sensible person in the car who took the trouble to observe them at all was doubtless laughing at them for their folly, but, all unconscious, they kept on with this silly practice. Absolute repose of the features should be taught every child as a part of its earliest lessons."—*Ledger.*

WHAT ALL HUSBANDS SHOULD DO.

I wish all husbands and fathers would make their wives and daughters allowances of money each week or month so that, in a measure, they would be independent, and not feel hesitancy in making their own purchases as they please. It does not follow that the amount must be large. But the mere handling of the money makes one feel more independent. It is not a pleasant thing for women to have to ask their husbands for every dollar they spend. It makes them feel cheap, and very often the money is given grudgingly. Wives should be independent in money matters. If they have not been brought up with a thorough understanding as to how to spend money and how to save it, their husbands can do no better work than to teach them the value of a dollar. I would urge upon fathers and mothers the necessity for educating their daughters in the full knowledge of money values, and after they have become thoroughly familiar with the matter they should be allowed to exercise their own discretion in their allowances.—*Jenness-Miller Monthly.*

TO MAKE SHOES LAST LONGER.

In the first place, as soon as you come in from bad weather, take off your shoes and fill them with dry oats, which will quickly absorb all the moisture and prevent the leather from losing its shape. Be particularly careful not to put your shoes near the fire. The next day take out the oats, which may be dried and made to serve again. If you do not like the idea of using oats, stuff your shoes with fine paper, which answers the same purpose.

Paraffine will soften leather which has been hardened by water, and restore its suppleness. A mixture of cream and ink is an excellent thing to rub on ladies' fine kid boots.

To keep your shoes from creaking, rub the soles with liuseed-oil. You may do this more thoroughly by letting the soles rest on a dish containing a little of the oil, which will be absorbed by the leather, and in addition to stopping the creaking, will make the shoes impermeable to snow and water.

Another way to keep out water is to heat the soles slightly, then rub them with copal varnish and let them dry. Repeat this operation three times and you can go into the wet with impunity.—*New York Herald.*

WOMEN'S MUSIC AFTER MARRIAGE.

How often does one hear a young matron remark: "Oh, no, I haven't touched the piano since I was married," when some one requests her to play. Now, isn't this rather unfair to the parents who have spent so much to have her acquire a musical education, and who in many instances have denied themselves comforts in order that she might own the piano which to-day remains closed and unused save at very rare intervals? Now, why is this? "I'm too busy," is the general answer made by the wives who but a few months or years ago delighted their friends with selections from the best composers. Five minutes a day is not much to spare, yet even so short a time as that given to practice would keep the fingers limber and prevent the ready excuse that springs so naturally to the lips. If nothing else, the keeping in practice should be regarded as a duty to those who have perhaps no accomplishments of their own, but desire their daughter to possess a higher education than theirs had been, and who revel in the marches, waltzes and old-time melodies their money has enabled her to play.—*New York and Paris Bazar.*

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A STATEMENT UNDER OATH.

MOUNT PLEASANT, MICH.,

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Dear Sirs—I now am able to say, after having purchased one of your No. 4 Electric Belts with Spinal Appliance about one year ago, that, I thank God I have found relief from my terrible suffering through the wonderful healing influence of your wonderful Body Belt. August 29, 1891, at which time I was a great sufferer, and had been for more than four years, from extreme nervous prostration, so much so that, on the least excitement my whole nervous system would be all of a tremble, from head to foot, and unable to control myself in the least, and would affect me to tears like a little child. I am a farmer by profession; in the fields, or at work on the farm, or at any excitement, it had the same effect. I could not lift the weight of five pounds. It so continued with increased suffering until I was unable to help myself, and for eight long months my suffering was intense. My stomach was so weak that I could not take any food but crackers and warm water for the above time. My kidneys were so weak that I could not retain my urine, it would pass from me continually, and I was under the necessity of leaving my couch from six to eight times a night to void my urine which was very painful. I was also troubled with severe constipation and piles, so that I was obliged to use injections to produce evacuations of the bowels. It was very distressing, so much so that I had to be lifted in and out of my bed for several months. The doctors could do me no good whatever, and I had made up my mind that there was no help for me this side of the grave. My limbs would become numb and cold, seemingly as ice, and I would try with hot bricks, rubbing and all other methods to restore the circulation and natural feeling, but all to no effect, and then it would pass off. Then again, another attack would occur which would leave me helpless, and so continued periodically, and I could get no relief. The doctors told me that I must not do any work, and that it would be three years at least before I would be able to work. I agreed with them for I could not, nor did I ever expect to again. The whole world seemed to me a blank, and my vital forces all had left me, and my life was fast ebbing away from me through the loss of my life fluids which the doctors were unable even to check. I had given up all hope of ever getting help, and death in all its terrible forms stared me in the face, from which there seemed to be no avenue of escape from this living horror, of which no living person is able to know or feel, except his suffering be as mine has been. In this state of suffering and agony I continued, until about one year ago now, I met a friend who, on seeing my helpless

condition, advised me to try one of the Owen Electric Belts. For several weeks I doubted his statements about what he told me of the wonderful healing properties of it, but he was so earnest and persistent that I finally consented to send for one. He advised me to get a No. 4 with spinal appliance which I did, at a cost of \$30.00, which is your price for No. 4 and spinal appliance. I will say here that it is the best \$30.00 investment I have ever made in my life in the way of doctor's remedies, or anything else, as I had spent dollars, up into the hundreds, but could get no relief whatever. As soon as I received the Belt and Appliance, I had it charged and adjusted and put it on, and in a short time after putting it on I began to feel wonderful soothing and gentle currents of its healing power passing all through me, clear to the end of my toes and fingers, a prickling sensation like thousands of needles. Many were the sleepless nights I have passed, unable to sleep but from one to two hours through the whole night for months. On the third night after wearing the Belt I slept until morning and awoke greatly refreshed. I was not disturbed, nor had I to void my urine once through the night, and I have not been bothered in that way since. All the drains upon the system have ceased, and constipation and piles all have left me as if by magic. My nerves have regained their former strength, my eyesight and mind have become clear, and I have gained in weight about fifteen pounds and I feel like a new man. My stomach has got back its power of digestion, and I can eat almost any kind of food that my appetite craves, without pain or distress. I am gaining daily and I feel better and weigh more than I have for the past ten years, and it seems I have a new lease of life. I cannot say enough in favor of your wonderful Electric Body Belt. It is far superior to all medicines compounded for the relief and cure of chronic and complicated diseases and broken down constitutions. I would not take \$2,000 for my Belt if I could not get another like it. There is nothing like it for relief and cure where all other remedies fail. I cannot praise your Belts enough, for what it has done for me words cannot express. I will say here that I recommend the Owen Electric Belt to all suffering humanity who fail to find relief from other remedies. It is the messenger of quick relief and certain cure of all nervous debility and other nerve troubles. I know it will cure all the diseases which you advertise it to cure.

This you may publish to let suffering humanity know there is relief and cure to be found in your wonderful Belts and Appliances.

DANIEL J. HOPKINS.

Subscribed and sworn to before me this 17th day of August, 1892.

D. E. LYON, Notary Public.
In and for Isabella Co., Mich.

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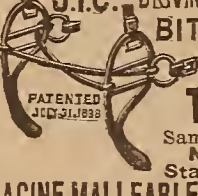
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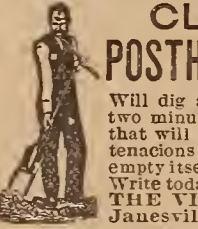
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FARM & FIRESIDE.

22 PAGES, WITH SUPPLEMENT.

EASTERN EDITION.

VOL. XVI. NO. 8.

JANUARY 15, 1893.

TERMS {50 CENTS A YEAR.
24 NUMBERS.

The Circulation of FARM AND FIRESIDE
this issue is

250,600 COPIES.

The Average Circulation for the 24 issues of
the last 12 months has been

264,541 COPIES EACH ISSUE.

To accommodate advertisers, two editions
are printed. The Eastern edition being
125,300 copies, the Western edition
being 125,300 copies this issue.

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and Springfield, Ohio.

Current Comment.

BRADSTREET's, in its issue of Decem-
ber 31, 1892, gives the following sum-
mary of statistics of business fail-
ures collected by it during the past year:

The number of business failures in the
United States during the calendar year
1892, with the exception of South Dakota
(where a state law renders it unlawful to
report such information, except under
prohibitory conditions), is 10,270, a smaller
total than has been reported to *Bradstreet's*
since 1882, ten years ago, with the single
exception of 1887, when the like aggregate
was 9,740.

This is not the only astonishing part of
the exhibit, for the grand total of liabilities
of failing traders in the United States in
1892 appears to be only \$108,500,000, a total
also smaller than in any year since 1882,
without any exception. A similar com-
parison may be made as to assets, the total
of which is \$54,700,000.

The total "business population" of the
United States in 1883 was \$55,000 commer-
cial and industrial concerns, individuals,
firms and corporations of sufficient stand-
ing and permanence to be of record, and
the number of failures in that year
amounted to 10,299, the first time the aggre-
gate had passed the 10,000 mark. Yet in
1892, nine years later, with a "business
population" of 1,035,000, a gain of twenty-
one per cent, the number of business fail-
ures is only 10,270, or about the same as it
was nine years ago, and the debts of fail-
ing traders are forty per cent smaller now
than then. This is the most striking fea-
ture of the year's exhibit with respect to
the commercial deaths.

MR. WILLIAM R. KING, the subject of
the following obituary from the
Bluefields Sentinel, Nicaragua, C. A.,
was the son of Major Wm. M. King, for-
merly the agricultural editor of this
journal:

"November 17, 1892, William R. King
died at the plantation of the International
Planting Company on Bluefields river,
Mosquito Reserve, aged 23, of Washington,
District of Columbia, U. S. A.

"Mr. King was a native of the state of
Ohio. He was a student at Antioch college,
Yellow Springs, Ohio, and has since pur-
sued a various and extensive course of
scientific studies. For nearly four years
he held a responsible position in the po-
mological division of the United States
department of agriculture, making a spe-
cialty of the semi-tropical fruits of the
United States, gaining an enviable reputa-
tion as an expert and authority on their
culture and characteristics.

"In 1891 he and Mr. G. E. Mitchell, also
of Washington, D. C., decided to visit the
tropics, their object being to engage in the
propagation and cultivation of exotic fruits
and ornamental plants. After reaching
Greytown they purchased a small schooner
and sailed up the coast, first landing at
Bluefields. They ascended the Escondido
river to the plantation of the International
Planting Company, where they were hospi-
tably received and entertained by Capt.
S. A. Risley, superintendent. They decided
to locate permanently, and they had resid-
ed there about five months at the date of
the death of Mr. King, which was caused
by a complication of fever and throat
trouble, notwithstanding he had competent
medical attendance.

"The deceased was a young man of exem-
plary character, upright and fearless in the
truth, and died as he lived, with a firm be-
lief and trust in that Infinite Being who
orders all things. He leaves a young and
devoted wife, a loving father, mother and
sister in the states, in addition to many
warm friends here who admired his ability
and enjoyed his genial companionship, and
who now deeply mourn his loss, not the
least among these being his companion
and partner, Mr. Mitchell. They were in-
deed brothers together. The funeral service
was conducted by the Rev. Siebarger, the
Americans of Bluefields attending the
ceremony and evincing the heartfelt sym-
pathy so characteristic when a country-
man is laid away in his last resting-place."

THE offer of free scholarships in agri-
culture by the Ohio state university
is accomplishing its object. It has
already largely increased in the number of
students taking the course of agriculture.
This is something of great promise. For,
as the larger the body the greater the
attraction, so the greater the number of
good students in agriculture the more
attraction there will be in this course and
the more new students will it draw from
the farms of Ohio. Students in the school
of agriculture can hardly fail to take back
to the farms much of real value to the agri-
culture of the state. In this way the offer
of free scholarships is increasing the useful-
ness of the university and benefiting the
agricultural interests of the country.

There is another class of students who,
after finishing their course at the univer-
sity, come in direct contact with the
farmers—the veterinary students. The
value of good, thoroughly educated veteri-
narians to the live-stock industry of the
country, one of the most important
branches of agriculture, can hardly be
estimated. A good, competent veteri-
narian becomes the farmer's best friend,
his counselor and adviser in the breeding
and feeding of domestic animals and in
their care in health as well as sickness.

The veterinary school of the Ohio state
university is second to none in the
country. It is training veterinarians who
will be a credit to their profession and of
much usefulness to their country. The
more of that kind it can turn out the
better. The country needs them.

And right here in this line is an oppor-
tunity for a good form of university exten-
sion—the extension of free scholarships to
students of veterinary surgery and medi-
cine. Undoubtedly the attendance at the
school would be enlarged and the interests
of agriculture benefited by the offer of
free scholarships, for a few years at least, to
veterinary students. The suggestion is re-
spectfully submitted to the board of
trustees of the university.

THE building of the Nicaragua inter-
oceanic canal is one of the greatest
enterprises of modern times. It is
an enterprise of the greatest importance to
the world's commerce; one full of promise
especially to the United States. The canal
should be built. The United States should
control it. But is there no other way for
the United States government to get con-
trol than by guaranteeing the bonds of the
private corporation that now has the en-
terprise in hand? Why should not the
government build the canal? For the pro-
tection of life and property it builds light-
houses along the coasts. For the benefit of
internal and maritime commerce it builds
harbors and improves rivers. To facilitate
the transmission of intelligence, the trans-
action of business and the administration
of justice it constructs federal buildings in
all the principal cities of the Union. Then
why should it not complete and control a
work of the very greatest importance to
the commercial and political prosperity of
the country? The United States now leads
all the nations of the world in agriculture,
mining and manufacturing. Its shortest
route to supremacy in commerce is through
the Nicaragua canal. Would it not be
better for the United States to do the work
without the intervention of private corpo-
rations and construction companies? Would
it not be better for the federal govern-
ment to have full and direct control over
the canal than the nominal control through
mortgage security offered to it for
guaranteeing the bonds of a private corpo-
ration?

The Nicaragua canal bill now before Con-
gress seems to be carefully drawn and as
good as could be advised to guard the in-
terests of the people and the nation, if the
federal government is going into partner-
ship at all with a private corporation. But
the question of greatest importance is,
should not the United States build, own
and operate the canal as any other govern-
ment work instead of forming a partner-
ship by the terms of which it assumes all
the financial responsibility and does not
become a sharer of the possible profits?

So far as possible under the inflexible
rule prescribed in the state constitu-
tion, laws governing taxation should
be so framed that the burdens thereby im-
posed shall rest equally on all kinds of
property," said Speaker Laylin in his
opening address to the members of the
lower branch of the Ohio assembly. The
members will do well to keep this admoni-
tion in mind during the entire session.
They will be called upon to make taxation
laws to shift the burdens. The people
want the burdens equalized.

Ohio needs a new system of taxation, but
cannot get a much better one under the
present constitution. Double taxation of
the most burdensome kind, for example,
cannot be avoided in laws made in accord-
ance with the letter of the article on tax-
ation in the state constitution. The state
cannot have a just and fair system of tax-
ation until the constitution is amended.
Twice in recent years has a taxation
amendment been submitted to the electors
of the state, and twice has it suffered de-
fault. There is nothing to do but to try it
again, and the legislature will probably
pass the resolution offered the first day of
the present session, providing that a tax-
ation amendment shall be submitted to the
electors next November. Until the con-
stitution is amended, the best the legisla-
ture can do is to proceed carefully along
the line indicated by the speaker.

FROM the report of the interstate com-
merce commission recently issued
we take the following statistics: On
June 30, 1891, the single track railway mile-
age in the United States was 168,402.74 miles,
the total mileage of all tracks being 216,-
149.14 miles. A table in the report gives
the length of line in the states per one
hundred square miles of territory. This
shows for Connecticut 20.77 miles, for Del-
aware 16.10 miles, for Illinois 18.25 miles, for
Iowa 15.12 miles, for Massachusetts 25.99
miles, for New Jersey 27.71 miles, for New
York 16.19 miles, for Ohio 19.68 miles, for
Pennsylvania 22.77 miles. The only coun-
tries in Europe which have an excess of
ten miles per one hundred square miles of
territory are Germany, Great Britain,
France, Belgium, Holland and Switzer-
land.

The number of men employed dur-
ing the year covered by the report was
784,285.

The total capitalization of the railways of
the country was \$9,829,475,015—\$60,942 per
mile of line.

The gross earnings from operation during
the year ending June 30, 1891, were \$1,096,-
761,395, or \$6,801 per mile of line. The
operating expenses were \$731,887,893, or
\$4,538 per mile, leaving the net earnings
\$364,873,502, or \$2,263 per mile of line.
Freight traffic gave a little over two thirds
of the gross earnings, and passenger
traffic a little over one fourth.

THE wonderful development of rail-
ways in the United States has un-
doubtedly retarded the building and
improvement of the common roads. The
period of railway development began just
about the time public attention was being
turned toward the building of a great sys-
tem of good roads through the country.
Railways were built instead of wagon roads,
and furnished far superior means of com-
munication and transportation. Highway
construction was neglected.

Now the country realizes that it needs
both good common roads and great rail-
ways, and public attention is fixed on the
subject as never before. But at this time a
marvelous development is taking place in
electric railways, and it seems probable
that they may solve the problem of coun-
try roads. Even at the present cost of con-
struction and operation electric railroads
could be placed on many of our principal
roadways and be a good investment, taking
into consideration economy of time, the
great advance in the value of farm lands
and the great saving of expenses for teams
and wagons.

THE Ohio state grange is successfully
endeavoring to develop and extend
among the members of the order the
system of co-operative purchasing of farm
and household supplies. Its record in this
line for the past few years has been very
good, and many thousand dollars have been
saved by members who purchased their
supplies on this system.

The executive committee maintains that
on nearly every article needed by mem-
bers, twenty-five per cent can be saved
through co-operative buying.

The saving of money is not the only
benefit farmers are getting from co-oper-
ative buying. They are getting valuable
and needed business training for future co-
operation in other lines. It is doing much
to break down the conservatism of farm-
ers and prepare them for a general system
of co-operation.

FARM AND FIRESIDE.

ISSUED 1st AND 15th OF EACH MONTH BY
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Our Farm.

OHIO STATE HORTICULTURAL SOCIETY.

This society held its twenty-sixth annual meeting at Toledo during the third week in December. There was a gratifying attendance, and much interest manifested in the discussions that took place. The first business was the reports of the ten members of the ad interim committee.

Wm. Miller, of Ottawa county, reported a small crop of fruit, there being scarcely any peaches or plums, and only a scant production of pears and apples. Those who depended upon jarring their plums to fight the curculio lost them by rot, and will be obliged to add spraying to jarring.

The curculio is the worst enemy to pear growing, the attacks of this insect making the pears knotty and irregular in shape and valueless for market or home use. The rotting of plums was thought to result from late stings of the curculio.

President Campbell said the gouger, which was furnished with a long snout, ate round depressions in the plum after it was partly grown, and sometimes laid eggs in them. These depressions held moisture and furnished receptacles for the easy breeding of fungus germs. This insect crawled up the stems of the tree, and he formerly fought them by putting bands of tarred cloth around the trunks of the trees.

L. B. Pierce, in his report, called attention to the fact that there were a good many peaches in Summit county in spite of the fact that there was a cold night in January when the thermometer dropped as low as twenty-seven degrees below zero, and in all cases went as low as twenty degrees. This showed that peaches, under the right conditions, would withstand a dozen degrees more of cold than was generally thought.

Apples generally failed in large orchards, the partial crop being gathered from isolated trees and small orchards. The large orchard of W. I. Chamberlain was carefully sprayed twice for leaf-fungus, or scab; but the rains or something caused the young apples to fall, and the spraying was not repeated, and there were not apples enough to warrant any conclusions. A flat platform, built on top of a two-horse hay-rack, was used to carry the spraying outfit, consisting of force-pump, with two spraying nozzles, and a barrel of liquid, with three men to operate the apparatus. This arrangement was admirably adapted to the work required.

Blackberries, like peaches, withstood the cold, which affected the thermometer so much more than the fruit, and there was a large half crop. The Erie seemed to be rapidly gaining ground, and the demand for plants was more than keeping pace with the supply.

The Muskingum strawberry promised to be the leading perfect-flowered strawberry. Bell, a strawberry originating with E. M. Thompson, of Virginia, was a slender, conical berry of beautiful appearance and more than average size, with the season of Gandy.

Palmer raspberry was a heavy cropper, and excellent reports came in regard to Progress, a new blackcap, and not much disseminated in Ohio.

E. H. Cushman, in making an interim report from Cuyahoga county, reported grapes a fine crop, selling from \$35 a ton upwards. The poetry was mostly gone from grape culture. Men rode two-horse gang-plows or cultivators through the vineyards, and cultivating through the summer thirty acres for each man and team, and the hoeing close to the rows was done with horse hoes. Vines were being trained so as to do away with summer tying, and newly imported Italian and German women picked the beautiful fruit. The cost of production had been reduced pretty near to the last notch, and the extension of grape planting could not increase the production a great deal before the margin would be on the wrong side.

J. K. Neiss, of Stark, reported a short fruit crop and an apathy in planting new orchards.

L. B. Pierce thought the planting of orchards was not keeping pace with the growth of population.

W. H. Albaugh said the increase of suburban population was so rapid that it would need a continuous planting of trees to keep up. A city like Chicago, with its population rapidly pointing to 2,000,000, consumed the surplus fruit of several states. Ohmer and Farnsworth added a word in the same direction.

I give some extracts from W. J. Green's interesting ad interim report from Franklin county. An orchard of Newtown pippins was operated on by the experiment station. Several mixtures were tested, but owing to the excessive rains, all were washed off except the Bordeaux mixture, which adhered sufficiently to do considerable good. There were blooms enough to make a fair crop, but on trees unsprayed there was scarcely any fruit.

On the popular idea that the washing away of the pollen by successive rains caused the failure, all should have failed; but the fact that trees sprayed with Bordeaux mixture bore, goes to show that the early spraying helped the trees, and that probably the apple scab is partly accountable for apple-crop failures. Facts were not yet accumulated sufficient to establish this theory; but it seemed to have some foundation, which further experiments might prove.

Pears were good in Franklin county. Kieffer bore the first crop in three years. It often fails because it blooms so early as to be killed with the frost. The blossom buds seem to be so tender as to be killed before blooming, a fact not generally observed. Aside from this weakness, the variety has more good points than have been generally conceded. Le Conte is more hardy as to bloom, but its very poor quality makes it doubtful whether it should be longer planted. Madame Von Seibold is even more detestable. The Wilder is pretty and good, but not extremely early. Idaho grafts made a vigorous growth, but have not yet fruited.

It seems to be a matter of doubt whether the American varieties of plum will prove valuable for cultivation, owing to their dull, unattractive colors.

Of strawberries, Parker Earle, Lovett, Muskingum, Enhance and Beder Wood are all good pollenizers and more than ordinarily productive. Parker Earle sometimes sets more fruit than it can perfect, but it does make many plants, and, with good management on rich soil, will probably prove profitable one year with another. Muskingum is deserving of unqualified praise. Enhance does not gain friends very fast, but its two greatest faults are acidity and roughness; but these are matters that do not concern growers very much. Beder Wood is early and productive, but subject to leaf rust. It has many good points and should be tried. Stayman and Van Deman will not be popular where large berries are in demand. Barton's Eclipse has points of more than ordinary merit. Greenville is worthy of high praise.

Of raspberries, Kansas is a promising blackcap variety, about as large as Gregg and of better color; but it will probably have to give way to another variety of Ohio origin, which although not new is still almost unknown. It equals the Gregg in size and is a few days later than Tyler. It

was first called Eureka but is now called Mohler. It has uncommon merit, and its large size makes it a real novelty among early varieties.

A new variety of blackberry, called Eldorado, seems about as hardy as the Snyder and Ancient Briton, and is larger than Snyder.

A paper entitled "Experiences in Spraying Plum and Peach Trees," was listened to with a great deal of interest, as the author, W. J. Green, has made many careful experiments in this line.

"It had been demonstrated in 1891, that spraying peach-trees with Paris green or London purple would check the curculio; but it was also found that the insecticides injured the foliage, causing it to drop and working as much injury as the pest it was used to destroy, but in a different way. Experiments made by Weed and Gillette went to show that Paris green was less injurious than London purple, and that the use of lime with Paris green neutralized the free acids of the arsenic and prevented injury. Then the insecticide was used in connection with Bordeaux mixture, and it was found to be satisfactory and cause but little injury to the foliage. Bordeaux mixture is costly and difficult to apply, and different formulas were tried, with a result that the following formula has been settled on as combining an insecticide and fungicide comparatively safe and not too expensive: Lime, 4 pounds; sulphate of copper, 4 pounds; Paris green, 4 ounces; water, 50 gallons.

"This application, while it pretty much checks the leaf-fungus, does not prevent rot; for this no remedy has been discovered. A good many plum growers think that rot is caused by late stings of the curculio.

"This year the curculio was abundant in August, and even up to the time of the ripening of the fruit. If this insect is going to continue to hire out for the season, it will be useless to try to circumvent it, as it will not do to spray with Bordeaux mixture late in the season, as it will coat the fruit and spoil its sale in market. The amount may be too small to be injurious, but it will be next to impossible to prove it to the public, which so readily stops buying fruit at the least suspicion."

Considerable time was devoted to pear culture, there being two methods urged. Mr. Counter, of Toledo, believed in the very highest culture, and accompanied this with very severe winter or spring pruning. After getting an almost fabulous growth, by deep cultivation and high manuring, he cuts back the last season's growth to three or four buds. He seems to be quite successful in getting large yields. He spends much time in his orchard, carefully studying the wants and peculiarities of his trees, and claims that no one can attain to the highest success without he does this. He grows Bartlett, Clapp's Favorite and Flemish Beauty as standards, and Howell and Duchess as dwarfs. The Anjou he grows both ways, one half his trees being on quince roots. He believes 24x24 feet to be about the right distance to plant standards, and 15x15 feet for dwarfs.

Mr. Cunningham, of Hardin county, believed in high cultivation for pears. If trees made a too rapid growth and were tardy about coming into bearing, he pruned in midsummer, cutting back the new growth to two or three buds. This had the effect to bring them into bearing in one or two years after, fruit spurs being formed on the shoots cut back. Weak-growing varieties were either not pruned at all or were slightly pruned when dormant.

W. W. Farnsworth thought Mr. Counter's method the best, for him. Mr. C. lived in the edge of the city, and there was a strong probability that in a few years the ground would be too valuable for orchard purposes. Under these circumstances it would do to run the orchard for all it was worth, regardless of the longevity of the trees. Manure was plentiful, within easy reach, making it cheap, so it was not difficult to keep up the highest fertility without swallowing up the profits. In his own orchard, now numbering nearly a thousand trees, he was obliged to take a more conservative course. Manure could not be obtained for lavish use, and he had doubts whether the trees would remain healthy under a system that forced growth to the most rapid extreme. In making haste slowly he had maintained a very healthy and uniform growth, and up to the present time had had only one tree that had even threatened to blight.

E. H. Cushman gave a brief talk upon gladiolus culture. This interesting and beautiful bulb was very popular, and the

demand for them was large. He had one hundred bushels in his cellar. These could not be kept in a pile like potatoes or turnips or they would spoil. He made lath trays two by four feet and a few inches deep, and the bulbs were spread in these. They were not filled quite full, and the trays were piled up in the cellar, which was dry and warm. The new trench varieties were very beautifully marked, but they were weak and imperfect in growth, the spikes being crooked, and on the whole he preferred the common, or *gandevensis*, type.

L. B. Pierce said Summit county was quite a point for growing the gladiolus. Several acres were grown the past season by two parties near him. The seed was mostly imported, costing ten dollars per pound. The method employed by one successful grower of seedling bulbs was to plow the ground in the fall, and in the spring, when the ground was dry enough to work nicely, to commence by laying down a fence board. Then an ordinary hoe was drawn alongside of the board so as to level a strip about seven inches wide. On this the seed was scattered broadcast and covered with half an inch of clean sand. Another board was laid down just beyond the strip sown and the operation repeated, and so on until the job was done. The sand was covered with cut straw and the boards were allowed to remain until the seedlings were two or three inches high, when they were removed and the soil loosened with a pronged hoe. The original type of gladiolus seemed to be of a dull brick-red—at least there was a constant tendency to breed back to this color, and growers, when the bulbs came into bloom the second or third year, dug out this undesirable color and threw them away. He had heard of one case where a grower had been obliged to throw away nearly all growing upon an acre because the colors had proved undesirable. The seed imported from England had evidently been saved from a plantation of very common varieties. The nearer the varieties approach the original type, the more productive it is and the faster it increases by forming bulbs and bulblets. If such varieties are planted in connection with choicer but weaker growing varieties, it generally comes about that the grower has, after a few years, only the common variety. This does not come about from mixing or changing color, but because the stronger varieties survive accidents of season or cultivation. Each produces after its kind, and if a lady grower will carefully keep separate each variety with all the bulblets belonging to it, she will find that of some she has many times more of than others and that some have failed to increase at all or have entirely died out.

L. B. PIERCE.

(Concluded in next issue.)

THE ROADS OF GREAT BRITAIN.

In these times, when the "gospel of good roads" is so zealously preached, a few notes concerning the common roads of Great Britain may be of more than passing interest. Traveling on foot through various portions of Scotland, England and Ireland, I had an excellent opportunity to observe some points concerning road construction and management.

At different times I was impressed with the following features: (1) The general direction. (2) The grade, including cuttings and embankments. (3) The bridges. (4) The construction of the road itself. (5) The method of maintenance and repair. (6) The foot-path.

Let us briefly consider these points somewhat in detail. To one more or less accustomed to the plains and prairies of central and western United States, where roads are almost uniformly on section lines, the common highways of Great Britain appear very winding, or crooked. In proportion to the apparent obstacles to be overcome, it would seem as if the directions from a right line between principal points were oftentimes unnecessary and uncalled for. In British railroads the line of direction and the actual route correspond much more closely. The common roads, however, were projected a long time ago, and I suppose the exigencies of local traffic, as well as the physical peculiarities of the country crossed by the road, made it necessary to deviate more or less from a straight line. At all events, the average road of Great Britain is extremely winding, and the shortest routes give way to easy grades and local convenience.

Probably all will agree that the ideal road should be straight, level, smooth and hard. But the best possible road under all the circumstances is a compromise with some

inevitable imperfections. It is often a question of how much additional length of a level or nearly level road will be equivalent to a grade of a certain steepness.

The grade of all the principal roads in Great Britain is what might be termed "easy." One general rule is that the incline should not exceed what is called the angle of repose. This phrase is used to express the steepest slope or incline down which a wagon will not run of its own accord or by gravity alone. I was informed that for a smooth, hard road and the average Scotch or English cart, the grade or angle of repose was about one in forty. British engineers have estimated that where the slope is one foot in one hundred, that one mile of such road is the equivalent of a mile and a half of a level road. That is, a team by the same exertion of power, could draw over a level road a load one half greater than it could draw up the grade mentioned. If the grade was increased to one foot in fifty, the same power would draw a little more than twice as much on the level road as up the incline. There is another advantage in reducing the steepness of the grade, which ought not to be overlooked, and this is that the wear of the road is always greater where the grades are steep and much less where the inclines are gentle.

With reference to the cuttings, a very general practice I observed is to build a retaining wall at the foot, or toe, of the slope. This not only prevents the earth from washing down and causing trouble, but adds greatly to the appearance of the road.

Where the earth is not needed to fill some depression, retaining walls of considerable height are often built, which greatly shortens the slope and lessens the amount of land used by the roadway.

The same pains are taken with embankments, and these are invariably covered with grass, which is kept neatly mown.

The bridges and culverts, of which there are many, all appear to be of the most substantial structure. They are usually built of good stone, and the masonry and material used in construction are of the best. The number of bridges is multiplied somewhat by the fact that the common roads never cross the railroads at the same level. They are either above or below, so that those distressing accidents at crossings, which are so common here, are entirely avoided.

But the most important thing in connection with the roads is the method of construction and maintenance. Before considering this, a word or two as to the width of roads.

In Scotland the general rule for all main roads was 24 feet. In England I saw roads that were 16, 24, 32 and 40 feet. Eight feet appears to be the unit of measurement, and the multiple depends upon the amount of traffic. Inasmuch as most of the roads were laid out before the railroads were in use, many of them are wider than the present necessity appears to demand.

We must remember, however, that the relative expense of maintaining a wide road as compared with a narrow one, is not in the same ratio as the cost of construction. The wear of a road is caused mainly by the amount of traffic, and the amount of wear will be the same for the same traffic whether the road be wide or narrow.

In fact, there is an advantage in the wide road, for weak places can be avoided, and the traffic being spread, ruts are less liable to be formed, and the surface more likely to be kept dry. In this country it is a common practice to gravel or macadamize only a small section in the center of the roadway, the sides being formed with soil or earth. This is rarely practiced in Great Britain, where it is regarded as poor economy and highly injudicious.

The water by soaking through the soft sides softens the foundation of the macadamized portion, which then rapidly gives way. Mud or earth is dragged out to the improved center to its great injury, and owing to the softness of the sides the road cannot well be leveled with a scraper at the time when this is most required. Under some circumstances a narrow section of a good road in the center may be advisable. In some places this is all that the travel demands. It often occurs, however, that roads are laid out very much wider than is necessary, and two thirds or more of the width is usually in bad condition.

Great pains are taken in the construction of British roads to secure a good foundation. When this is once properly constructed, humanly speaking, it is a permanent thing. All that is necessary thereafter is to maintain the protective coating. The thing first attended to is thorough drainage of the foundation. In most places I judge the

foundation is the natural surface of the ground. Sometimes concrete is used for a base, and not infrequently a layer of quite large stones, in the form of a close, firm pavement, is used. The stones are placed on edge, the largest being in the center. When the foundation is finished, there should be a slight convexity. All the spaces between the stones are filled with stone chips firmly wedged or packed in. Unless this is done the covering material will settle between the stones, and they will gradually work to the surface.

Nearly all the roads I saw were made of broken stones. Formerly the pieces used were of irregular size, the larger being put on first, and the smaller above. But material of this character did not bind together well, and the roads were rough and far from perfect.

But since the days of Macadam the broken stone used as a covering material is of a uniform size throughout. The size of the pieces of stone are in due proportion to the space occupied by a wheel of ordinary dimensions on a smooth, level surface. This point of direct contact is much smaller than we generally suppose, and the best engineers claim that every piece of stone, which must exceed an inch in any of its dimensions, is too large to give the best results.

The kind of stone largely used for road covering in Great Britain are granitic rocks and limestones. Trap-rock and gray-wacke are sometimes used, and these are regarded as the very best. Sandstone, chalk and gravels are considered as very inferior.

Whatever the kind of stone used, it is broken into angular fragments of as nearly equal size as possible, each piece being small enough to pass through a two-inch ring. These broken stones are spread by the shovel with great care. It is put on in layers of about three inches in thickness, and when this is packed, or consolidated, another similar layer is added, and so on until the requisite depth of covering is secured.

WILLIAM R. LAZENBY.

THE ICE-HOUSE.

The time was, and not so very long ago, when an ice-house on the farm was an extravagance that was thought worthy of being condemned. This was before ice had become one of the necessities of good living. Ice was considered one of the luxuries that city people could afford. This is no longer. Ice belongs to the civilization now found on the farm, as well as the town and city.

The supplying of the farm differs greatly from what is now so common in cities. The iceman does not come around to farm-houses and leave the orders of the housewife as in towns and cities. When the country becomes more densely settled and everybody buys ice, there will be a change in this particular; but for the present farmers must depend on their own supplies of ice. This makes it necessary to have ice-houses and to put up ice in a proper manner and at the proper time.

It is not important to give any plan and specification of an ice-house here. Such were of more importance a few years ago, when it was thought there were some mysteries about putting up ice so it would keep during the year. Expensive ice-houses are built, and the most perfect arrangements are provided for filling, managing and the economical handling of the supplies; but, so far as a place to keep ice goes, a rail pen, a wood-house or a log house or any outbuilding will do. These are a few points quite indispensable, though, and should be kept in mind, or all will be a failure.

There must be a good roof, and a well-drained bottom that will stand firm and solid, and where no water can stand at any time. There must be proper ventilation at the top. The floor should be laid on a four or five inch cushion of sawdust. The floor may be of loose boards, laid an inch and a half apart, to let the water through readily as the ice melts. There should be a space of from eighteen to twenty inches between the ice and the sides of the building from the bottom to the top of the ice. This must be filled with sawdust or fine charcoal.

The ice should be cut in blocks of uniform width and breadth, so they will make a compact mass in the ice-house. Should spaces be found, fill them with pounded ice, snow, or sawdust well tamped in. When the house is filled, the whole mass should be covered with sawdust two feet deep. In addition to sawdust some use a layer of straw or hay on top.

In taking ice from the ice-house it is well to observe some method and precautions.

It is best to always take it from the top, and to leave the covering in good shape. It will be necessary to have the door so it can be filled and emptied to good advantage. It requires no great amount of genius to arrange the door and other essentials of an ice-house when once they are determined upon. On almost every farm some building can be spared or hastily improvised, if no ice-house has been provided, that can be used temporarily as an ice-house.

It is insisted upon that this question be considered by every farmer's family at once, and prompt action taken in the matter. This is meant as a sanitary as well as an economical measure. No family is too small not to need a daily supply of ice. No farm-house can afford to be without a cooler, an ice-box, a milk-chest where ice can keep the temperature down to the frost line. The cool milk, butter, meat, vegetables and drinking-water are well worth all it costs to provide them.

Since the more general use of ice on dairy farms, the quality of country butter has steadily improved. The price of choice country butter in this market to-day is the same as the best creamery. In some instances it is worth more; at least it brings more since it is put into better form—"printed."

The treatment of diseases by the best physicians nowadays has greatly changed from what it was half a century ago. Ice has become a common and common-sense factor in curing nearly all ailments that flesh is heir to. Should next summer be a cholera year with us, which God forbid in mercy, ice will be in demand.

Where it is convenient for two or three families or more to join in putting up the year's supply of ice, it would relieve the first cost of the business and prove a blessing to the liberal-minded share holders. This spirit of co-operation and brotherly kindness has always been taught by the FARM AND FIRESIDE, and therefore is not new to our readers.

R. M. BELL.

WINTER DAIRYING—DAIRY BARN.

During my late long and dangerous illness with typhoid fever, commencing August 30th, quite an accumulation of letters have been received asking for silo, ensilage and dairy information by readers of FARM AND FIRESIDE. I am happy to say I now am able to sit up all day and can walk around a little, and have just commenced to write a little for the agricultural press, and as strength comes to me, will in due time answer all.

Several have asked so many questions about my dairy barn, perhaps I had best describe that first.

Winter dairying can never be made a complete success unless the farmer will provide a warm barn, and in this day of competition he must have the silo and ensilage feed for his cows in winter-time, or else stand near the foot of his class and count his profits in pennies instead of dollars.

I had best say at commencement I have had twenty long years of hard experience trying to run the dairy summer and winter in cold barns and milk-stable where manure would freeze every zero night in winter-time, and my cows would eat almost their full size of dry hay and grain every day. Twenty dollars per head was the least cost estimate I ever put upon wintering dairy cows, especially if they gave any milk in the winter.

Five years ago this last summer I made a new dairy barn, after many years of waiting until I would be rich enough to do it. I now see the grand mistake of my life, and that is that I did not know enough and have sand enough to build the new barn twenty years ago. But it has come at last, and is 34x60 feet, and two stories high.

The basement story is made of stone, 8 feet high, well lighted with windows and sash-doors, and painted white inside, and the stable presents as neat an appearance as many house kitchens. I have a cement floor, made of water-lime and sand, 5 to 6 inches thick, resting upon a cobble-stone floor 8 to 12 inches thick, to insure more perfect drainage on our clay ground.

My cows stand on raised platforms that are inclined 2 inches from stanchion mangers to manure-gutters, and made of two-inch planks, 4 feet 7 inches long, which is just exactly right for my large, Guernsey cows, that weigh from 1,200 to 1,300 pounds apiece. The manure-gutter is 6 inches deep and 18 inches wide, and perfectly liquid-tight. I use absorbents, straw, leaves and sawdust to save and utilize this liquid manure.

Back of this gutter I have a raised plank walk, 3 feet wide, against my stone wall on

each side, so we can go behind the cows and keep our feet clean. My feed-mangers are 52 feet long on each side of the barn, 2 feet 6 inches wide and 3 feet high, with feed-boxes 4 feet long, so each cow has 4 feet of space. We have plenty of room to go between the cows, and curry and brush them every day. This adds to milk flow, besides improving their looks.

The partitions in the feed-mangers are made of 2x10-inch plank, resting upon a plank floor in the manger, just as high above our cement floor as the platforms our cows stand on.

In each manger we have water-troughs made of 2x8 and 2x10 plank spiked together V-shape, and these are 52 feet long and rest upon the partition plank in the feed-mangers, which makes them plenty high enough for cows to drink handily. I give one inch fall from front to back end of trough. I have a good well of water at the front end of the barn 26 feet deep, and with hose 2½ inches in diameter, we conduct water from the pump to the water-troughs, and the old cows drink their fill in peace and harmony once a day. They will not drink night or morning, when they have their ensilage feed, because it is so moist; but at eleven A. M. each day we feed dry hay—all they will eat up clean—and at one o'clock they drink. We never let our dairy cows out of the barn in winter, or cold, stormy weather, and if they are carded off nicely there is no occasion for it. The only reason on earth for letting common cows out of the barn in winter is because the farmer is too lazy and shiftless to card them, and the old cows have to rub themselves against the corners of a rail fence to do the work themselves. There is no excuse for my dairy cows to do this, and their good, sleek, fat sides, with glossy hair, tells plainly they never wish to try it again.

The front sides of my feed-mangers are made of planed, matched and ceiled lumber, painted white; so also are the alley partitions to front end of barn. Nice milk-benches sit in front alleys to place pails of milk where it will keep clean at milking-time, and upon these partitions the milkers leave their blouses and overalls when stable chores are done, and they can go into the house in much improved condition and occasion less remark from our women folks.

The silos are four in number, on the second floor of the barn, ceiled up with one-inch lumber, planed and matched, none of it over 4 inches wide. The floor of the pits is made of the same stuff, and rests on heavy joists 3x12 inches, only 1 foot apart, studding 2x8 and 14 inches apart. The pits are 15 feet square, inside measure, and 12 feet deep, and hold fully fifty tons apiece, enough ensilage for forty head of cattle. Our dry cows and young cattle in another barn we feed from these pits also. Every feed of ensilage, night and morning, contains fully four quarts of corn and cob cut up together, and is warm and moist and in its most digestible condition. It is ample grain feed for cattle, and is all the grain I have fed my cattle winter-times for five years, and they do well on it. As I told your readers last summer, this kind of winter feed does not cost over \$8 per head, instead of \$20—my old rule. Who cannot see that a dairy managed as mine now is will pay good money, especially when they can get thirty-six cents for butter in Cleveland, Ohio, sold to private individuals who will pay well for good, fresh winter butter.

Now, in winter-time, is the opportune moment to get the material together to repair the old barns or build new ones. Now is also the time to prepare for co-operative dairy work. Don't go without silos and ensilage another year, is my advice.

H. TALCOTT.

After the Grip

"I was very weak and run down and did not gain strength, like so many after that prostrating disease. Seeing Hood's Sarsaparilla highly recommended, I began to take it, and was more than pleased with the way it built me up. I think it has made me better than before I was sick. I have also been delighted with HOOD'S PILLS, and always prefer them to any other kind now. They do not gripe or weaken."



Mrs. Emerson.

I am glad to recommend two such fine preparations as

Hood's Sarsaparilla

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Our Farm.

WINTER GARDENING.

Raising Celery-plants.—A subscriber (F. L. M.) in Oregon asks for information on the best method of making a hotbed for celery, and on the kind of manure to use. Instructions how to make a hotbed have often been given in agricultural papers, and may be found in almost any large seed catalogue, and certainly in every book on general gardening. Indeed, it might be claimed that we should not take up space in a live paper with so old a topic. On the other hand, I know that even the expert gardener (unless he has made special preparations in the fall before) may find himself puzzled when he desires to start a hotbed in midwinter, and while the temperature ranges in the vicinity of zero. Evidently, our friend in Oregon means to raise an early crop of celery; for while the plants for a late crop may be raised in open ground, seed to be sown in April, those for the summer crop should be started in February. If you keep a number of horses or otherwise have access to plenty of fresh horse manure, and can get the needed quantity of unfrozen loam or muck, you will have but little trouble to start a hotbed. Manure from well-fed and hard-worked horses is best. In an emergency you may mix sheep and even hog manure with it. Pile it up under a shed and let the whole mass come to a heat. Then fork it over, putting the cold outside portions well inside, and give the mass time to heat up again. Dry leaves gathered in autumn, if mixed in with the manure, serve to temper it, and to produce a moderate but lasting heat. Now you are ready for starting the hotbed. Make a frame of a size to correspond with the number of sashes you wish to use. It will not take many, as a single 3' by 6' sash affords space enough to start, and accommodate, for three or four weeks, 20,000 to 30,000 plants. Put an even layer of the prepared manure, two feet or more in depth and well trodden down, on the south side of some outbuilding in a well-protected, sunny spot. Put on the frame; then fill in the prepared loam to the depth of four to six inches, and cover with the sash or sashes. After a day or two rake the bed smooth with a fine rake and get it ready for sowing seed. You may sow broadcast or in close, shallow drills, one to two ounces of seed per sash; but in either case firming the soil thoroughly over the lightly-covered seed. White Plume is the variety we want for this purpose. The plants should begin to show in from ten to fourteen days, be allowed to stand in the seed-bed for another week or two, and then be pricked out into flats, or directly into a cold-frame, three inches by one half an inch apart.

Should the weather be very cold, and the preparation of the hotbed thus early be very inconvenient, we may try another course. Get a lot of flats—that is, shallow boxes—and put in them about two inches of fine loam, sandy muck being preferable to any other kind of soil. Give a good watering, then sow the seed rather thickly; firm thoroughly, and set one eighth of an inch of soil over it. Set these flats on top of each other in a moderately warm room. A week or so afterwards, take them down, water with a fine rose-sprinkler and pile up again until the young plants begin to appear. By this time a moderate hotbed, or a cold-frame in a well-protected spot, should be in readiness and the flats be put in.

MANAGING FLOWERS.—For many years I have paid little attention to flowers. Yet I love them. The daughter that I lost a year ago was passionately fond of flowers. The wife that I buried a few days since cared with devotion for the flowers which our daughter started from cuttings and nursed until her fatal sickness. Flowers now remind me of my loved ones who have gone where sorrow is unknown. Why shouldn't I love flowers? I now see more in them than most people can. But like most other people, I am sometimes puzzled about the proper treatment of this or that plant, about the kind of soil it wants or the amount of water; when to give it rest and when to encourage its growth, etc. I am too busy to hunt over the files of horticultural and florists' papers, or through heavy books on floriculture, ornamental gardening or botany, etc., when I wish to find out something about the treatment required by this or that plant. But unexpected help has come in a

little work, "Guide to Floriculture," by Columbine. It gives me what I need for my special case in small compass. A dozen pages or so are devoted to general information on soils, pots, shifting, watering, stimulation, syringing, training, propagation, etc., while all the rest refer to the special operations with special plants each month. This is exactly what has been needed—a treatise for the amateur, the busy man and the busy housewife. The author and publisher is E. Ruston, of Syracuse, and he deserves a vote of thanks for bringing out so useful a work for the small price of fifty cents.

JOSEPH.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

PLANT-LICE.

Quite recently, when cutting scions that were forgotten earlier in the season, I noticed that there was a great number of small, shiny black eggs around the base of the buds. These are the eggs of the lice that are occasionally so very troublesome on apple and plum trees and other plants. In the spring these eggs will all hatch into female lice, which will grow rapidly for ten or twelve days, when they will commence to give birth to living young, producing about two a day for two or three weeks, after which the older ones die. The young locate near their parents, and they, too, become mothers, in ten or twelve days, and are as prolific as their mothers. They thus increase with great rapidity. As the season advances, some of them acquire wings and form new colonies elsewhere. When cold weather approaches, males as well as females are produced, and the season closes with the deposit of a stock of eggs for the continuance of the species another year.

We may be favored next spring with a hard frost after the eggs hatch (for they hatch in the first warm days), when the lice will be destroyed by millions, but if we have no such fortunate circumstance, we ought to be ready to spray the foliage of the trees very early in the spring, at which time a very little spraying may save us much loss or larger sprayings later in the season.

It often happens that the casual observer lays the work done by lice to the charge of ants, which may be seen very active on the trees that are burdened with lice. The ants, however, use the lice as cows, which they irritate by stroking them on the back, and they exude a sweet sort of syrup that the ants are very fond of. This syrup may often be noticed on the ground under the infested trees.

SILVER SPRUCE AGAIN.

In several papers I notice the statement, said to have been made by Prof. Sargent, that the beautiful silver spruce (*Picea pungens*) was not likely to prove a permanent thing of beauty, as he "sees indications that it will lose its lower branches, like the balsam fir, as it attains some age."

This may be true in the moister air of the eastern states, where this remark originated. In the drier and hotter air of Iowa and Nebraska our older trees—and we have them much older than any we know of at the East—grow each year more beautiful, and it is the peer of all of our conifers in this essential of the perfect evergreen. The old trees at Nebraska City, Neb., have as vigorous and growthy lower limbs as the younger ones. The northwestern white spruce is the only one that approaches the silver spruce in this respect. It is a western tree, and we should make the most of it while the seeds are yet obtainable. If the wood-chopping vandals and the fires are not kept out of the east slopes of the Rockies, the silver spruce in twenty years will be as hard to find in its native habitat as is now the buffalo on the plains.

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

American Chestnut.—J. S., Franklin, Idaho. I do not know as to the hardness of the American chestnut in Idaho, but in Minnesota and the Dakotas, and even in northern Iowa, they are not hardy, though in the latter place they may stand a few years, and therefore I think they would not be hardy in your section.

Raspberry Culture.—A. C., Pine Island, Minn. The trouble with your raspberries is that they are too thick. If you will cut them out next spring, so that they will stand in hills (of six canes each) about three feet apart in rows five feet apart, you will probably have them all fruiting heavily in a short time. As it is now, only the plants on the outside of your hedge have sufficient room for their roots.

Saving Persimmon Seed.—C. A. S., Middleburg, Va. The seed of persimmons may be separated by throwing the fruit, after it has been frozen, into a barrel and breaking it up, and allowing it to ferment until the seeds separate readily from the pulp, when the whole mass should be agitated in water and the pulp floated off, leaving the seed. The seed should then be dried. I do not know that the seed is used to any considerable extent in the northern states, and would be glad to hear from any of our readers who do.

Kainite for Root-aphides.—A. B., Gibson, Mich. Kainite has seemed to retard the work of the root-aphis in some peach orchards, but I am not prepared to recommend it as a sure cure for the trouble. I think it should be used at the rate of about six pounds to a large peach-tree and proportionately for a smaller tree. If the roots near the base of the trunk are badly infested with the aphids, the soil should be drawn away and hot water applied. The kainite is best applied in the early spring.

Time to Plant Papaw Seeds.—E. S. C., Arapahoe, Neb. Papaw seed should be kept over winter in moist sand in a cold cellar or outdoors, and planted in the spring. In keep-

ing seeds of this nature, or in fact the seed of most of our fruits, especially those that are generally considered hard to germinate, I have been most successful by laying the seed in the autumn on the surface of the ground in a shady place and covering it with a sod until spring. It is also important that such seeds be not allowed to become dry and hard.

Kerosene Emulsion.—J. J. F., Greenville, Cal. The following formula for kerosene emulsion will be found an efficient remedy for lice in the growing season, when the lice are destructive. In the winter the lice exist only in the egg form. Formula for emulsion: Soft soap, one quart, or hard soap (preferably whale-oil soap), one fourth pound; hot water, two quarts; kerosene, one pint. Stir until all are permanently mixed and then add two gallons of water, and spray the infested foliage. It is very important that the kerosene and soap thoroughly mix. To make this sure, use a force-pump and pump the water through it and back into the mixture again.

Setting Out Strawberry-plants.—C. G. W., Clarksburg, Mo. Strawberry-plants should be set out in rows five feet apart, with the plants two feet apart in the row; that is, if you are going to use the strong-growing commercial kinds. If land is high-priced the rows might be one foot nearer, but I get the best results from the above distance. It is customary to take runners of the preceding year's growth. Such plants have white roots, and are thrifty and grow much better than older plants. They will not bear more than a tenth of a crop the first season, if allowed to fruit the first year, but all the fruit should be picked off the first year, so that the whole strength of the plant is thrown into forming new plants which will fruit the next year.

Raising Cranberries.—J. W. H., Whiteson, Oregon. You might be very successful in raising cranberries on the piece of land you mention. I think you had better begin in a small way with a part of it and increase as your success seems to warrant. If there are bearing beds of wild or cultivated cranberries near you, it would be well to get your plants from them. If you cannot find them, I suggest that you put a small advertisement in some paper circulating largely in your state, and I think you will find them near by. Any of the large nurseries of the eastern states will furnish plants. For full details about cranberry culture I think you had better get "Cape Cod Cranberries," by Webb. It can be obtained of Orange Judd Co., for forty cents.

Apple-borers.—J. C. F., Colorado. The best way to get rid of apple-borers is by digging them out in the fall. A wire may be used to kill them in their holes. There is no wash that will serve as a perfect protection, but a wash made as follows will be found a great preventive of their work if applied in June and July, when the beetles are laying their eggs, to the trunks of the trees: Five pounds of potash, five pounds of lard stirred in five gallons of boiling water; one peck of quicklime slaked in five gallons of boiling water, and mixed while hot with the potash and lard mixture. Dilute by adding two gallons of boiling water for each gallon of the mixture. It is a good plan to add enough carbolic acid to the mixture to make it smell strong of it. The reason why washes are ineffective is because as the tree grows it expands and leaves cracks in the covering.

Shading Gooseberries.—J. L., Rancher, Mont., writes: "Please tell me how to prevent gooseberries from scalding. Would a row of high peas or corn planted on the south side of it help it? I had some bushes grown over with ivy and morning-glory, which did not suffer from the sun. From that came the idea of planting something to partially shade them."

REPLY:—Yes, a row of peas would do, but it would be better to make a frame of poles supported on rough posts six feet from the ground and covered with enough willow or other brush to give a play of light and shadow over the bed, but not heavy enough to keep out more than one third of the sunlight. I have used such a screen over strawberries, and found the plants healthier and the crop greater for it, and the cost on a small scale is but a trifle. It is well worth trying in your severe climate. I know a skillful horticulturist in the drier portion of Nebraska who has about one fourth of an acre so covered each year, and finds it a great help in growing successfully some garden fruits that are out of the question for him ordinarily.

Apple-trees Not Fruiting.—B. S., Pangburn, Ark., writes: "I have some very fine, large apple-trees that produce only a small crop of apples each year; say about two dozen each. The ground is rich and the trees are thrifty. They are ten or eleven years old. What shall I do to make them hold their fruit?"

REPLY:—The age at which apple-trees come into bearing varies much with the varieties; for instance, the Duchess of Oldenburg and Wealthy will fruit when very young, while the Northern Spy is a very tardy bearer. Then again, when young apple-trees are growing thriftily they frequently bear but little fruit, and the richer the soil the longer time it often requires to bring them into bearing. Anything that will check their growth in the growing season will start them into bearing-wood. I suggest that some time next June you give them quite a little pruning on the smaller branches, shortening in the new wood. However, there are some varieties that are never prolific bearers, but presuming that you have well-known, desirable kinds, I think the above treatment the proper one.

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Our Farm.

A NEW ERA IN SHEEP HUSBANDRY.

The tremendous endorsement of the tariff-reform party in the late elections is quite enough to make sheep raisers open their eyes. It looks now like the worst fears of wool growers were to be realized when the incoming administration comes into power. Were it not for the belief that the tariff-reform party will not carry out the Chicago platform, and that certain Democratic leaders will not be endorsed by their party, there would be cause for anxiety and possibly for alarm. It cannot be said there are not symptoms of a panic in existence among wool growers, but not in regions and among flockmasters that might have been expected to scare and abandon sheep raising as an impossible thing.

The experience of the last half dozen years has taught the American sheep raiser some valuable lessons. The one important query five years ago among wool growers was: "What will the coming sheep be like?" The question has now been solved, and no one now doubts the abilities of the sheep with mutton qualities to stay, no matter what may come to the wool product. Those who have been experimenting with cross-bred mutton sheep, and, in fact, with some of the pure-bred families, have found no diminution of fleece values on sheep whose meat product was quite profitable enough to justify the raising. If, then, the American farmer and ranchman can raise sheep for mutton, and at the same time raise a fleece quite as valuable as hitherto, it is reasonable to conclude that the thing will be done. Such a view is doubtless taken of the situation already, since there is no serious dissatisfaction expressed in recent sheep conventions or in private correspondence.

At no time in the history of the sheep industry could such a thing have happened as the late flop of the people towards the tariff-reform party without causing the most unbounded complaint. Not that wool growers are pleased, but they better understand their resources and abilities to conform themselves and transform their flock, if not already done, to the changed conditions and requirements of the markets. The indications are that sheep will continue to be profitable in the various lines of mutton. This will stimulate the breeding of all sheep in the direction of size, symmetry early maturity and better feeding qualities.

If the fleece shall receive the attention it deserves, there will be no loss in cash values. This proposition was ridiculed five years ago by Merino breeders, for a cause or on account of ignorance, no one can say. The results have very happily removed all doubts where crosses have been well chosen.

There will be many changes in flocks to meet the present conditions. It is impossible to decide what breed or class of sheep shall represent the popular taste in the next decade. While this is a highly important matter, it will take some experience to settle upon a sheep that can meet the ideas of the average farmer. It will be a question that everyone must determine by intelligent observations and some experiments. There will still be need of all the breeds. No one can meet all the requirements or fancies of the sheep raisers.

It is safe to conclude that no poor sheep can be profitable, that no careless, thoughtless, unbusinesslike sheep raiser will remain in the business. There is to be a mighty waking up all along the line. The way is plain before the flockmaster; the sort of sheep is well defined; the results are to be just what the breeder makes. With mutton sufficiently profitable to justify the raising of sheep, and the fleece as a possible valuable second, there can be no reckoning what the mutton era of American sheep husbandry shall develop into.

If farmers decide to make sheep a factor of fertility in the system of farming, with small flocks on every farm, it is not impossible (it is quite probable, indeed) that more sheep shall be raised and more wool produced and better fleeces on sheep that mature at two years old than has heretofore been thought possible. It will all depend upon the amount of brains put into the business by farmers. If they follow the advice of those who say, "It cannot be done," and give up the business without trying, that will end it.

Should it be found, after four years, that free trade is not what the American people

want, their wiser counsels will prevail, and the American people will be the better and more sensible for having taken the free-trade medicine that was sugar-coated for them in 1892. And it may be that wool growers were all mistaken about the importance of a wool tariff under the new conditions now surrounding American agriculture and contingent upon commercial circumstances.

In the meantime all must depend upon the grit, skill and persistence of intelligent, progressive, wide-awake, awakened farmers.

There is a suspicion that much will now be learned of keeping sheep that would not have been had not this dire calamity, or at least anxiety, threatened the industry. Wonderful progress was made between the years 1887 and 1892. The then threatened free-trade policy of the Democratic party caused sheep raisers much uneasiness, and led to diversifications and to new lines of profits that were entirely new in this country.

It is too much to say that all has not been learned. There are still possible developments, more thorough systems, better economies in breeding and feeding to be learned. The situation is not without precedent in the history of the sheep industry of other countries. The farmers of the older industrial countries found the means of continuing and making sheep raising pay, and we can because we have to.

R. M. BELL.

EXTRACTS FROM CORRESPONDENCE.

FROM KENTUCKY.—We are located in the heart of the blue-grass region, in one of the finest countries in the Union. Crops were tolerably good. Wheat looks very well, considering the dry fall. Corn is selling for from \$1.75 per barrel in field to \$2 delivered. The tobacco crop was good, and brings good prices, ranging from 11 to 13 cents per pound.

Loradale, Ky.

J. P. S.

FROM VIRGINIA.—Prince George county is located about sixty miles northwest of Norfolk and directly south of Petersburg. There is much land here that is not cultivated on account of the change which took place about thirty years ago. I came to Virginia in October, 1892, and expect to stay. Any one wishing to see this country will do well to come at once. The land is poor, but can be made just what you want it to be. There is plenty of wood and water, and the finest climate I ever saw. The land is nearly level, and can be bought for from \$5 to \$25 per acre.

Petersburg, Va.

H. A. B.

FROM OKLAHOMA.—In the Cheyenne and Arapahoe reservation, which was opened to settlement April 19th, lying west of the older Oklahoma, the first twelve miles was added to Kingfisher and Canadian counties, and that west and southwest was divided into six counties, known as C, D, E, F, G and H. The writer lives in "C" (now Blaine) county, and fifteen miles from the line of the older county. The nearest railroad is one that follows pretty closely the line between the new and old county, and gives us an outlet to northern markets and an inlet from the great lumber fields of Texas and Louisiana. To show how quickly the country has settled and how well it has improved, we give three points. To the nearest railroad station it is eighteen miles, and just six months after opening we counted eighty-five houses on land adjoining the road, one of them of sod, two dugouts, the others frame, seven of them two stories. From our own windows we can count eighty-six houses,

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and from Cedar Mound, three miles west, about two hundred can be counted, only about a dozen of which are in a town. Sunday-schools have been in session in several communities ever since the opening, and quite a number of churches organized, and several country church buildings will be erected this winter, and nearly every school district is arranging for a winter school. Two newspapers are published in the county. The affairs of the county were very badly managed by the appointed officers, but the recent election put new men in, and we hope it will be rescued out and none in. The six months' time allowed after filing, which must be done within ninety days from setting stake or throwing dirt, is now expiring, and settlers are coming in rapidly, and by March 1st all will be on the ground ready for farming. Those who, like the writer, remained with "the stuff," have plenty of feed for their stock, though the opening was two months too late for success in grain raising, as of course only sod ground could be had. Those who were here, and have sod broken, have put in quite a large acreage of wheat, which will likely be the standard crop. There are always some who go to a new country for speculation. Some of these sold out before filing for \$25 to \$500. Others filed, and are offering them now for from \$250 to \$2,000. December had much rough, rainy weather, the thermometer registering as low as ten above zero.

Winnview, Okla.

J. M. R.

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MY CATALOGUE is full of bargains. \$4.50 offered in premiums; \$900 is offered persons sending me the largest number of customers by July 1st; \$500 for the largest club orders; \$100 for the largest farmer's order; and every one will be paid July 1st. Mrs. T. B. Young, Rock City, Ill., sent largest club order in 1892 and I paid her \$500. Her photograph is in catalogue. Don't buy a seed until you see it. Prices low. \$1 customers get 50 cents extra of their selection FREE.

MY OFFER I will send a package each of "Earliest Tomato in the World," Sure Head Cabbage, Giant Silver Queen Onion and Alice Pansy with my Catalogue for only 25 cts. Every person sending silver, P. N. or M. O. for the above collection will receive free a package Mammoth Prize Tomato, which grows over 14 ft. high, and this year I will pay \$500 to any person growing one weighing 4 lbs. It CAN be done. If 2 persons send for two collections together each will receive Free a package of "Wonder of the World" Beans. They originated among a tribe of Indians, stalks grow large as broom handle and pods 18 in. long. Beans white. It is a wonder, and such a curiosity was never heard of before. Address, F. B. Mills, Rose Hill, N.Y.

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Our Farm.

THE POULTRY YARD.

Conducted by P. H. Jacobs, Hammonton, New Jersey.

MOVABLE ROOSTS.

WHILE the designs of movable roosts illustrated in this issue may not be serviceable to some, yet they may convey "an idea" to those who have only a small flock, with limited space in the poultry-house. With one exception, they are movable, so as not only to be placed at any point in the poultry-house, but to allow of carrying them outside to be cleaned.

The "elevated roost" is arranged with a high and low bar, the latter to accommodate such heavy hens as the Brahmas, which cannot fly. A bar may also be placed in the middle, between the upper and lower ones, if preferred.

The "post roost" is intended for such breeds as Leghorns. The post may be high or low, according to preference, and only one of the cross-pieces may be used, if desired, according to the size of the flock.

The "barrel roost" is simply a square frame nailed to the top of a barrel, and is suitable for the little Bantams. As they will naturally face outwards, the barrel will serve admirably as a receptacle for the droppings, both from the fowls and also from the sweepings of the floor.

The "flat roost" is intended to show not

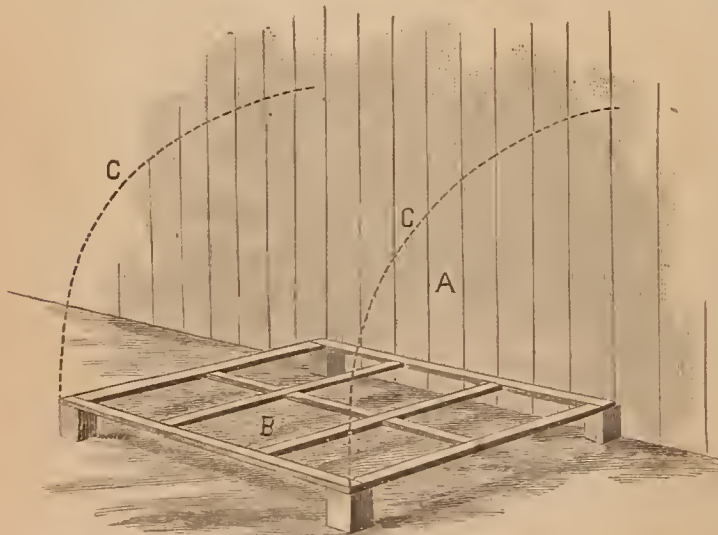
only a low roost (which is to be preferred for large fowls), but the dotted lines indicate that the roost (B) may be raised during the day, occupying an upright position against the wall of the house (A), to be lowered at night to the floor.

The "coop roost" is in the form of an open coop, being simply a movable frame, the hens occupying the top, or utilizing the lower rails on each side also, if the flock is large. For a small flock the middle rails may be omitted.

The designs are intended as cheap contrivances to save space in the poultry-house, as the roosts may be removed in the morning and replaced at night. It is hoped, however, that each reader may improve them to suit the convenience of his poultry-house.

WHEN TO CONFINE FOWLS.

Whenever a lot of fowls must be marketed, the fattening process should be done by confining them in the yard. Any attempt to fatten for market by feeding the



FLAT ROOST.

laying hens with the others, will result in making the laying hens too fat for profit. A small yard will serve to fatten market fowls, as they will not increase in weight if cooped in small coops or boxes. When a number are together they will be contented, and by feeding them four times a day, allowing a variety of food, they should be in the most attractive condition in about ten days.

BEGIN THE NEW YEAR RIGHT.

Now is the time to begin in a systematic manner. First of all, keep an account of your flock, so as to know what your hens are doing, and also what you are doing.

We have given many valuable hints during the past year, some of which have been forgotten, and which may be necessary to be repeated, but while we will endeavor to avoid repetition, we must continue the warnings to avoid mistakes by our readers.



BARREL ROOST.

New additions to the large family that is interested in this department are being constantly made, and we must aim to instruct them also. If each reader will plan his work for the year, and have some special object in view, he will escape many mistakes. It is safe to say that the majority of persons who are interested in poultry govern themselves by circumstances, and regulate their management of to-day by the occurrences of yesterday. Such a course may be necessary in some cases, but our advice is to keep strict accounts, and have some object to accomplish and which you intend shall be reached.

As we stated above, now is the time to begin, with the new year.

SULPHUR FOR FOWLS.

Do not use sulphur in the food at this season of the year, as the weather is usually too damp. Sulphur may be allowed during the dry days of summer, but only occasionally. We doubt if there is any advantage to be derived from its use in the food, but it is considered by many as an excellent preventive of lice when it is dusted in the nest-boxes and on the bodies of the fowls.

WARM WATER IN WINTER.

When the thermometer gets down below zero, it is impossible to keep water before the fowls. The better plan is to give them warm water three times a day. The warm water will be found to be very beneficial, assisting to invigorate them and greatly aiding in keeping them in condition.

SMALL TURKEYS.

Except during Thanksgiving and Christmas, the small turkeys are in more demand than are the large sizes, though there is a class of customers that prefer large birds. The greater number of sales, however, are of turkeys which weigh not over ten pounds each. Small families care but very little for extra large birds, as the cost is increased by the weight, and the small birds serve better. Others prefer to buy two small birds rather than a single large one. We mention this matter for the benefit of

those who have late turkeys, and which were rather small for Christmas. Good prices will hold until the broilers begin to come in heavily, when turkeys will sell somewhat lower in price.

PULLETS AS LAYERS.

The main object in hatching the pullets early is to have them begin laying at some time before Christmas. Late pullets nearly always begin to lay in early spring, but as eggs in winter bring good prices, the early pullets are very profitable. Pullets are, how-

ever, very uncertain, and when they should begin in November they may not commence until January or February. When this occurs, the cause may usually be traced to overfeeding. Should the pullets be fat and do not lay, give them no grain at all for two or three weeks, allowing one meal only a day, which may consist of one pound of lean meat for twenty pullets.

EGGS OF PURE BREEDS.

The greatest demand for eggs of pure-bred fowls, on the part of the breeders, is from January to June. It is necessary, to order early, in order to secure eggs when the hens are ready to sit; hence, the majority of the orders are sent in January and February, though March leads when the



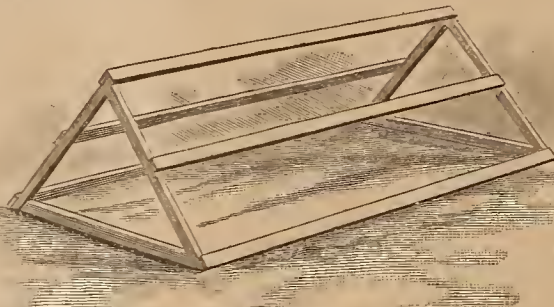
ELEVATED ROOST.

winters are severe. Our object here is to give the readers some advice in ordering eggs for hatching.

First, send in your orders early, and buy from some breeder who has a reputation for reliability, if it can be done.

Second, do not have the eggs sent until you are sure you have the sitting hens, so as not to keep them too long after arrival.

Third, do not expect all of them to hatch, as eggs laid in winter do not hatch as well as those laid in the spring.



COOP ROOST.

Fourth, if you desire eggs of the small breeds, you can defer your order to a later period, probably April.

Fifth, hatch young Brahmas, Cochins

and Plymouth Rocks during March, if it can be done, so as to give them a greater period of time for growth.

POULTRY IN THE BARN.

The barn should not be used as a poultry-house. The farmer who will not provide a place for his hens is sure to have a filthy barn, as the hens will roost on the rafters, on the troughs or wherever it is most convenient. It may be mentioned, also, that lice will thrive in a barn as well as elsewhere, and they multiply very rapidly under the conditions afforded by a barn or stable. Even during the winter the warmth of the stable will be sufficient for their propagation. The work of clearing a barn or stable of lice would discourage even the most industrious.

OUR ILLUSTRATIONS MONTHLY.

We suggest that the issues which contain illustrations be retained for reference. We receive many

inquiries asking for "the best plan for a poultry-house," although we are giving designs monthly. If we knew of any plan that would suit all of the readers, we would not hesitate to give it, but such is an impossibility, owing to differences in cost, climate, etc.; hence, we can only submit designs for your inspection in each issue.

INQUIRIES.

Mating Turkeys.—"Subscriber" writes: "How many turkey hens should be mated with one gobbler?"

REPLY.—About ten is the usual proportion, but as a single union of the hen and gobbler fertilizes all of the eggs that the hen will lay until she begins to sit, the number of hens may be increased if preferred.

Ducks.—R. E., Chillicothe, Ohio, writes: "Should ducks have a separate place for laying, or can nests be prepared for them in their sleeping-house?"

REPLY.—The duck-house should be well covered on the floor with litter, and very low boxes or partitions may be made for them in the house where they sleep. They lay very early in the morning, hence should not be turned out until the sun is well up.

The Best Breed.—J. B. W., Fair Forest, S. C., writes: "I wish to keep the best breed of fowls in an inclosure forty by sixty feet, and desire to know which breed is the most profitable. 2. Will it be of any advantage to have a male with the hens when eggs only are the object? 3. How many eggs should a hen lay in a year?"

REPLY.—1. There is really no best breed, but probably for your climate the Brown Leghorns should be selected. They are non-sitters and excellent layers. 2. Males are not necessary if eggs are not to be used for incubation. 3. About ten dozen eggs a year is an excellent average.

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Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

White Holland Turkeys Wanted.—M. S. L. Britt, Iowa. See advertisements of breeders on poultry page.

To Destroy Weevil in Peas.—J. V. Rockdale, Texas. Put the peas in a box. On top of them place a saucer containing two or three ounces of bisulphide of carbon. Cover the box tightly. The fumes of this volatile liquid being heavier than air will descend through the peas, and are sure death to the weevils in them. Handle the liquid with care, as its vapor is inflammable.

Post-auger.—E. G. P. Lynchburg, Va., writes: "In the issue of October 1st I saw a reference to post-auger. Please tell me where I can get one, or where they are made."

REPLY BY JOSEPH:—I have no doubt that you can find so common an implement as a post-auger at any one of the various dealers in agricultural implements in your own town. Your leading hardware and seed dealers surely keep them for sale.

Octagonal Barn.—W. W. L. Beadling, Pa., writes: "Is an octagonal barn convenient for stabling stock? Is there as much floor space as in a square barn of the same circumference? Is it cheaper to build an octagonal barn than a rectangular one?"

REPLY:—There are some very convenient eight-sided stock barns. They contain more floor space than rectangular barns of the same length of outside wall. The cost of building them is probably greater than the cost of building square or oblong barns, or there would be many more of them.

Stable of Baled Straw.—P. R. F., Bottineau, N. D., writes: "I would like very much to get a plan for building a stable from pressed straw. Up in this country timber is very scarce and lumber very expensive; consequently, farmers cannot afford to build granaries and stables out of lumber. I understand they build barns in Colorado out of pressed straw. Now, it would be a great saving for us poor mortals if we could utilize our straw for that purpose, instead of burning it, as we do at present."

REPLY:—Will some reader who knows how buildings are constructed of baled straw kindly send plans?

Salt for Asparagus.—J. L. Buchanan, Mich., writes: "Please tell me the proper way of handling an asparagus bed that has been set four years. Also, how much salt to use to the square rod, and how often to salt it."

REPLY BY JOSEPH:—Salt applications, even to the extent of ten or more barrels per acre, will do no harm to the asparagus plantation, and it may do but little or no good. I am not a believer in salting land, but if you wish to try its effects, you may use three or four or more barrels per acre. My advice, however, is to use good manure, preferably old compost applied broadcast and harrowed or cultivated in spring. Or if compost is not at hand, or not to be had at a cheap rate, use wood ashes, bone-meal and nitrate of soda or a good complete commercial fertilizer, and the more the better. If your plants are set the proper distance, and not crowded, liberal feeding will give you the large, fat shoots that are wanted in market and that will bring a good price.

Food for Cows.—R. B., Gloucester, Mass., writes: "What is the most profitable food for milk cows when everything has to be purchased, only scanty pasturage in summer being near at hand? How much hay and what grains and vegetables will be cheapest and most profitable food?"

REPLY:—The answer depends on what foods are in your market and on what prices they bring. There is nothing better than good, sweet, bright corn fodder for winter feed. Next comes good clover hay, then meadow hay. For grain foods, corn and oats, in proportion of one bushel to two, ground together, stand near the head of the list. Bran is good; so is linseed meal, and cotton-seed meal is most excellent. Mangel-worms are as good a vegetable as you can feed. The most profitable to use will depend on your market prices. For instance, corn fodder and cotton-seed meal may be cheaper for you than hay, corn and oats. Are not some of your neighbors trying to solve the problem of cheap feeding by the use of silos and ensilage? If so, watch closely their experiments.

Bones for Manure.—J. S., Cedar Dale, Canada, writes: "I can get a quantity of old bones. How can I make them into a manure to fertilize corn for next spring's crop? If they are dissolved by sulphuric acid, would the addition of wood ashes be beneficial, and would nitrate of soda also added improve it? If they are right, will you please state in what proportion they should be used on a black, loamy soil?"

REPLY BY JOSEPH:—I think I have recently given directions in these columns how to treat bones with sulphuric acid to make them available for manure. Look it up. I will repeat, however, that I do not usually advise the ordinary farmer to try this method. Better put the bones in barrels or vats with alternate layers of unleached wood ashes, and add enough water from time to time to keep the mass moist. After four to six months, empty them out. You will find most of the bones softened enough so you can break or mash them. If not, stratify them again with ashes, keeping moist for some time longer, until at last they are in shape to be used for fertilizer. Put a handful or two of the mixture into each bill at planting-time.

Best Potatoes and Tomatoes.—A. S. K., Hamilton, Ind., writes: "Please inform me as to the most productive early potato for main crop. Also the best tomato for main crop, a heavy yielder being wanted. How is Livingston's Perfection or Favorite?—What varieties of sweet corn (twelve-rowed) do you recommend? Early Cory is too small in ear. I want something larger and more productive; if a few days later, no matter."

REPLY BY JOSEPH:—If you want a very early tomato, either for home use or market, plant Early Ruby; for main crop, use Ignomus or Matchless, although Livingston's Perfection and Favorite are also good. The Potato Leaf is a fine variety for a purple one. For an extra early potato use Early Ohio, planted on rich, rather heavy and moist ground. Polaris is a little later, and is one of the best early sorts. Early Rose is yet reliable. All these early sorts need rich soil. It is no use in planting them on ordinary ground that may give you one hundred or even two hundred bushels of late potatoes per acre. If your soil

is not rich, better plant the later kinds, unless you fear blight, and plant early ones in the expectation that they will mature ahead of blight attacks.—For a later and larger sweet corn, try the ordinary Stowell's Evergreen or the newer Shoepeg.

Fertilizers for Onions.—S. E. M., Zoar, Va., writes: "What fertilizers would be most suitable for growing onions on sandy, gray land with clay subsoil, which has been run out by long cropping with corn and tobacco? What chemical or chemicals combined would do the most good, and in what quantities would you advise using it per acre? Where can such fertilizers or chemicals be obtained, and at what prices?"

REPLY BY JOSEPH:—I think it probable that the land will need a complete fertilizer, such as sold by leading manufacturers under the name of "special potato" or "special vegetable" manure, in order to fit it for growing onions. Even that may not be enough. I would prefer to put the land through a preparatory course by feeding it with mineral foods, either wood ashes and bone-meal (or dissolved rock), or sulphate of potash, cotton-seed hull ashes, etc., in place of the wood ashes, and then raise black peas, crimson clover or any other suitable green crop for plowing under to make humus and add nitrogen to the soil. But try the complete manure on a moderate scale, at the rate of not less than a ton per acre, or a corresponding combination of potash salts, phosphate and nitrate, and find out what can be done on your soil. W. S. Powell & Co., of Baltimore, can furnish you anything in the line of fertilizing materials. Write to them for prices.

Clover—Manure for Garden.—L. S., Independence, Iowa, writes: "On my farm there is a sixteen-acre field, soil sandy loam, that has been in medium clover two years. The lessee, through inexperience, failed to secure the seed in time. He cut it, raked it in windrows and left it, and now it is covered with snow and of course lost. As seed is going to be scarce and high, I would like to know whether or not the seed, which is undoubtedly well scattered, will come up and make a good stand, if the land is plowed next spring and sowed to oats? It is generally not considered safe to plant corn on a clover sod turned under in spring.—The soil in my garden is a sandy loam. In July last I spaded an old strawberry patch under, filling every furrow with cow manure made last winter. I raised a fine crop of turnips on it. As all the rest of the garden is in such shape and condition that I cannot use any more manure on it next spring, and as I would like to get this patch as rich as possible, I want to know if I cannot use the fresh cow manure on it as fast as made during this winter and work it in next spring."

REPLY:—In the first place, all the seed may not be lost. Examine it, and if there is any seed left in the straw, at your first opportunity in the spring fork over the windrows and hull as soon as dry. The seed frequently remains uninjured in the straw during the winter. If plowed shallow and thoroughly harrowed, you may get a good stand of volunteer clover in the oats, but it will not do to depend on it, as the clover-seed may be buried too deeply in plowing to come up well. We do not understand why it is not safe for you to plant corn on clover sod turned under in the spring. In many localities it is the first choice for a good corn crop.—If not mixed with much straw or coarse bedding, you can safely use fresh cow manure on your garden.

VETERINARY.

Conducted by Dr. H. J. Detmers. Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to Dr. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE:—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Worms.—E. B. E., Normal, Ill., writes: "I have a colt, eighteen months old, that has worms. They are about an inch long. The colt eats very well, but is mopey and has no life about it."

ANSWER:—A few injections of raw linseed oil into the rectum will remove the small worms; but the mopeyness may possibly have another cause.

Catarrhal Inflammation of the Uterus.—E. A. C., Unionville, Mo. Your mare suffers from catarrhal inflammation of the uterus. I would advise you to first cleanse that organ by irrigating it with warm water of about blood temperature. If you have no other means to do it, you may inject the water, carefully, though, with a large syringe. This done, apply once a day an injection of a one-per-cent solution of carbolic acid, also blood warm.

Grub in the Head.—M. T., Wallacetown, Pa. Not much can be done by way of treatment, except, perhaps, when the larvae of the fly, *Cestrus oris*, are yet very small and have just been hatched. The preventive consists in keeping the sheep, and particularly the lambs, away from the pastures where and when the flies are swarming; consequently, from the first of July to the last of September. Shepherds frequently try to prevent the attaching of the eggs by smearing tar on the nostrils of the sheep.

Lice.—V. C. C., Kansas, writes: "I have some cattle that have lice. They are rubbing the hair off and getting poor. They run in the stalks and get all they want to eat. They are so wild I can't get near them. What shall I do with them?"

ANSWER:—If you cannot get near your cattle I certainly cannot catch them for you; neither do I know how to remove the lice from a distance. Can't you get a good cowboy who knows how to handle the lasso? When your cattle have been caught and you can handle them, you can wash them with a tobacco decoction; or if it is too cold for that, may dust Persian insect-powder into their coat of hair.

Diarrhea.—G. Y., Vermillion, Wyoming, writes: "We raised some orphan lambs last spring, but a good many of them took a looseness in their bowels after they had been fed with cow's milk for a day or two. Can anything be done to prevent their taking the looseness?"

ANSWER:—If again you have to raise lambs on cow's milk, see to it that the milk is fresh, sweet and pure, and cases of diarrhea may not occur. If they do make their appearance, the following powder, given with a few ounces of chamomile tea, will effect a cure, provided the lamb is neither too young nor has been sick too long: Powdered opium, 2 to 3 grains; powdered rhubarb, 3 to 4 grains, and carbonate of magnesia, 5 to 8 grains. This dose, intended for a lamb about two weeks old, may be repeated once after ten or twelve hours.

Ringworm.—A. J. S., Ravenna, Ohio, writes: "Several of our cattle are affected with a peculiar disease that commences around the eyes, taking the hair off. It then extends to the neck and head, the hair coming off in clots, and a crust forming over the bare places."

ANSWER:—What you describe seems to be ringworm, a very common infectious ailment of cattle. Paint the patches over with tincture of iodine, or wash them with a five-per-cent solution of carbolic acid. Repeat this treatment several days in succession, and at the same time clean the stable in a most thorough manner. The cause is a fungus.

Sweeney.—R. B., Diamond Springs, Mich., writes: "I have a colt four years old next spring. While we were breaking it last fall he ran away, but not far. I afterwards used him some in fall plowing and dragging. About two months ago I noticed that one shoulder was shrunken. He is not lame."

ANSWER:—So-called sweeney is best treated by feeding the animal with sufficient quantities of good and nutritious food, by exempting the same from work—at least from all hard work—and by allowing as much voluntary exercise as is convenient. It will take from six to eight months until the shoulder is filled out again.

A Cribber.—L. L. L., Raymond, Neb., writes: "I would like to state, through your paper, this query: I have a fine yearling filly that has got to cribbing. She takes hold of the manger, and then draws back on it and sucks wind."

ANSWER:—If your filly is a confirmed cribber, you cannot do anything, except, perhaps, nailing some sheepskin, with the wool on, on border of the manger; or removing the manger or feed-box altogether, and feeding the animal out of a bucket, or something similar, that can be taken away as soon as the food has been eaten. If the young animal is not yet a confirmed cribber, and you have in the same stable an older horse that is, remove either the former or the latter to another place.

A Weaver.—M. H., Mt. Kisco, N. Y., writes: "I have a colt two years and five months old. He has the habit of frequently standing and swaying his head from side to side. A friend on looking at him said: 'Why, he is a weaver.' Now, I want to know what makes him do that. If it is a trick, what probably started it? Can he be broken of it, and will it be any real injury to him in any way?"

ANSWER:—Weaving, like crib-biting, is a bad habit of which it is exceedingly difficult to break a horse. If your colt is not yet a confirmed weaver, exercise from morning till night, or at any rate, enough to make him tired and anxious to lie down and rest, may possibly break him of his bad habit.

Windgalls.—J. S. S., Ottawa, Ill., writes: "What can I do to cure windgalls on my colt's hind legs? He is a three-year-old Norman colt, and has been in pasture until about a month ago. Since then has been standing in the barn. He has had exercise nearly every day. The puffs were there when he was brought from the pasture."

ANSWER:—The best way to remove windgalls is by persistent and judicious bandaging. If that is too much trouble, you may try applications of iodine preparations. The tincture, applied once a day, is probably the best. But tincture of iodine will stain the hands; therefore, if it is to be used, it will be advisable to cover the hand that rubs it in with a piece of bladder. Still, windgalls, even if successfully removed, have a great tendency to return on the least provocation.

Stomatitis.—A. H., Oakland, Ill., writes: "There is a disease among my horses which seems to be contagious. It first appears in the mouth under the tongue, and makes the membrane resemble blood-shot meat. The under surface of the tongue has a fiery-red appearance, and sores appear on all parts of the tongue. Some of the sores are round and small, while others are long and narrow, and some very large. The horses slobber and have great difficulty in eating. The breath is very offensive."

ANSWER:—The disease you complain of usually runs its course, and will terminate in recovery without treatment. Give the patients an opportunity to rinse their mouths in slightly acidulated but otherwise pure water by keeping a huckletful of fresh water, into which a very small quantity of either sulphuric or carbolic acid has been dissolved, constantly within their reach. If you wish to do more, you may take a weak solution of alum, or a one-per-cent solution of carbolic acid, and with it swab out the mouths of the patients two or three times a day, by means of a sponge tied to a stick.

A Hernia.—I. C., Swan Creek, N. B., writes: "About six weeks ago a two-year-old colt of mine either got hooked or rolled on something which penetrated through the hide and membrane on the left side, about midway between the shoulder and flank, making a hole about two inches long, through which the caul, which surrounds the paunch, protruded and hung down within about six inches of the ground. It had been hurt about half an hour when found. I threw the colt and tried to put the caul back, but the stomach and bowels being so full, I could not get more than one fourth back, so I cut the remainder off and sewed the wound up. In about two weeks the colt was well, but there is a bunch on the side about as large as a hen's egg. Now, will the loss of the caul be any injury to the colt, or would there be any danger in letting the colt get with foal?"

ANSWER:—What you describe is an abdominal hernia. The skin has healed, but the other parts of the wall of the abdominal cavity have not become united. You are very fortunate in so far, at least, that your filly, notwithstanding that no aseptic treatment was applied, did not die. The treatment of such a hernia depends upon its exact location, its size, the shape of the hernial sac, etc. In most cases it requires an operation. What in your special case can be done, or cannot be done, will have to be determined through an examination by a veterinarian. Consequently, as an operation, if advisable in your case, requires a veterinarian to perform it, it will be best to consult one at once. Whether or not it will be safe to breed the animal is a question which also must be decided by an examination.

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AT SET OF SUN.

If we sit down at set of sun
And count the things that we have done,
And, counting, find
One self-denying act, one word
That eased the heart of him who heard;
One glance most kind,
That fell like sunshine where it went,
Then we may count the day well spent.

But if through all the livelong day
We've eased no heart by yea or nay;
If through it all
We've done no thing that we can trace
That brought the sunshine to a face;
No act, most small,
That helped a soul and nothing cost,
Then count that day as worse than lost.

—Ella Wheeler Wilcox.

His Sister's Lover.

BY JAMES OTIS.

CHAPTER III.

SEARCHING INQUIRIES.

During five or six seconds only did the two stand, silent and motionless, gazing at each other, the faces of both like those of the dead, and their eyes wide-staring, as if "seeing, they saw not."

Then, with a movement more like an automaton than a creature of flesh and blood, Ruth turned and descended the stairs, clutching at the hand-rail for support. Laurie stood as if fixed to the spot, gazing after her, and when she was lost to view amid the semi-obscurity of the cabin, he continued staring blankly into space. How long he remained there it would have been impossible for him to say. It might have been an hour; it might have been five minutes; he took no note of time. It was as if the past and the future had suddenly been rolled down upon him, and under the weight of years he was overwhelmed. The steward whose duty it was to stand the night watch came on deck, and asked if he was sick.

"Yes," he replied mechanically; "I am sick, and with that from which I shall never recover."

The man turned and went below, muttering to himself, "He wasn't drinking in the smoking-room; but all the same, he's got more of a load than he can carry. Wonder what his girl will say when he flashes up in the morning with a bad head?"

"Did I throw Clark Ogden overboard?" Laurie asked himself again and again, without being able to answer the question.

The overpowering anger which had seized him, together with the sudden submersion, had bewildered him to such an extent that it was absolutely impossible to decide just what had been done during those few terrible moments.

"Have I committed murder?"

The horrible fear rendered him frantic. He paced to and fro wildly, unconscious of what he did, and then came the idea that he should have given the alarm instantly Ogden disappeared. Why had he neglected to do this, which, to the most inexperienced, would have been the natural impulse? He could not reply; for, knowing something akin to murder was in his heart at that moment, it seemed as if, in addition to the involuntary crime, he was guilty of intentional neglect.

One thing was uppermost in his mind, standing out as if in letters of flame: He, and he alone, was responsible for Clark Ogden's death.

If not a murderer when the sea engulfed them, his subsequent inaction was certainly as criminal as the actual deed.

Singular as it may seem, he did not think of the fact that Ruth Clayton must have been a witness to the struggle and its terrible ending, until his mind was worn with horror almost to the verge of giving way under the strain. Then indeed was the cup of bitterness and remorse filled to the very brim, and in the apathy of despair he went to his room, where, with great draughts of brandy, he sought the forgetfulness which might never come to him in this world. He succeeded only partially in stupefying his senses, and when the steward knocked at his door to announce that breakfast was ready, he leaped to his feet wildly, fancying for a moment it was a summons to answer for his crime.

"I can't see those people. I can't look into Ruth's face and read there the accusation," he said, as he laid down once more; but hardly had the recumbent position been assumed, when came the thought that it would be absolutely necessary to show himself in order to allay possible suspicion.

Now he was no longer the shrinking murderer, but the criminal who seeks to throw the officers of the law off the scent.

Dressing in nervous haste, his hands trembling so violently that only after the greatest exertions could he fasten his clothing, and with bloodshot eyes which told of mental suffering, he entered the saloon where the passengers were seated at the table.

His seat was by Ruth's side, but she never looked up when he came. Her eyes were studiously averted from his, and her face as colorless as marble. She was pretending to eat, but he could see that she never swallowed a mouthful.

It seemed to Laurie as if each passenger was gazing at him suspiciously, and when he lifted the coffee-cup to his lips, more than half the contents were spilled on the table. Ruth pulled her dress aside, as if even the contact of her clothing was too great an intimacy with a murderer. He knew she had judged him, and understood only too well what her verdict must necessarily be.

"Where is Mr. Ogden this morning?" some one asked, and Laurie started as if under the influence of an electric shock.

A steward reported that he had summoned him to breakfast, but without receiving any answer.

"Try it again," one of the gossips of the smoking-room suggested. "He may be sick." A visit to Ogden's cabin, and the man brought the following information:

"He must be on deck, sir; the room is empty."

"I have been there since six o'clock, and am positive he hadn't come out of the saloon up to the time the breakfast bell rang."

Laurie gripped hard his knife and fork to control the nervous tremor of his hands, but

pallid face thrown here and there amid the swirl and rush of waters.

Then he believed Ruth was about to tell of that which she had seen; her head was raised slightly, and her lips were parted as if to speak.

Cold, bead-like drops of perspiration covered his forehead. Was he to be denounced by the woman he loved so dearly?

With every nerve strained to its utmost tension in order to prepare himself for the agony of accusation, he waited; but instead of the tones he knew so well, it was the captain's voice which broke the silence.

"Ask the first officer to have a thorough search of the ship made at once. I cannot think any accident has befallen Mr. Ogden, and am confident we shall soon find him; therefore I suggest, ladies, that you finish your breakfast quietly, for he must soon come to ask pardon for having given you such a fright."

The captain left the saloon when he had ceased speaking, and Laurie, seeing several of the gentlemen follow the officer, took advantage of the opportunity to rise from the table. He went directly to his room; but once alone, the thought came that at such a time he must remain with the others if he would avert suspicion.

Into the saloon and up the broad companion-way without having glanced at the shrinking

didn't pay much attention to any one. I hardly remember seeing the steward."

"I spoke to you, sir," the man said, "and you told me you were sick with that from which you would never recover. If you'll excuse me for saying it, sir, I thought you had taken a drop too much."

"Yes, yes, that is it," Laurie replied eagerly, drawing a long breath of relief as this plausible excuse was put in his mouth. "I did drink too much last night, and am suffering from the effects of the dissipation this morning."

"You must have gone away alone, then," the elder gossip suggested with an odd smile, "for you didn't show yourself in the smoking-room."

"No—er—I—er—you see, I went to my cabin intending to retire, and there drank some brandy. It always affects my head."

During this brief conversation, which had been carried on almost in an undertone, the captain was questioning the stewards; but nothing further regarding Clark Ogden's movements could be learned, and Laurie went forward alone. He felt that if he remained within range of all those curious looks he should be obliged to betray his secret; he would walk until sheer fatigue forced him to close his eyes in dreamless slumber.

The smoking-room gossip hurried after him, and the unhappy man started, very much alarmed, as the former touched him on the arm.

"Odd about Mr. Ogden's disappearance, isn't it? Do you think it is a case of suicide or murder?"

"Who said murder?" Laurie cried sharply, turning on his heel abruptly and trying in vain to control the tremor of his limbs.

"Bless you, no one that I know of. We have the right to form a theory as to the matter, now it is positive he is no longer on the ship."

"Certainly—of course, quite right," Laurie replied, with a nervous laugh which sounded strangely at variance with the expression of his face. "What do you think it is?"

"Murder, of course," the gossip said in a whisper, as he looked squarely at the trembling man; and then turning abruptly away he joined the group on the quarter-deck, leaving Laurie staring after him like one who has been stricken fatally.

CHAPTER IV.

AN INTERVIEW.

Not until he had become dimly conscious that he was attracting the attention of the passengers by his odd behavior, did Laurie change his position from the one taken when the ominous-sounding words were spoken in a distinct and rigidly polite tone. There could be no mistaking them. The man had suspicions as to the true state of affairs, even though he might have no actual proof, and for the first time in his life did Winfield Laurie understand the sensation of being in another's power. It is true, Ruth had seen the crime committed, but only for an instant at the breakfast-table did he believe she would betray him. Now, however, the mark of Cain had been discovered by another, and there was reason to fear he would soon be shunned as an evil thing by all who knew him, perhaps openly charged with the crime.

Meanwhile, the captain was making the most searching inquiries relative to the mental condition of Clark Ogden when last seen, and Ruth was among those whom he questioned, because the missing man had been much in her company.

Laurie, feeling that all were looking suspiciously at him, resolved to go to his cabin, alleging as excuse to those nearest that he was suffering from a severe headache, and while passing through the saloon, saw the captain in conversation with Ruth.

"Is she telling him what she saw last night?" he asked himself, and the possibility that such might be the case necessitated his clutching the hand-rail for support, lest he fall.

Never before had he suffered from faintness; but now it was as if a mist, blood-red, danced before his eyes, and he staggered like one drunken, seeing only the girl he loved amid all the throng. She did not glance at him; but the increased pallor on her face told she knew he was there.

One of the stewards helped him unlock the cabin door, and he threw himself on the bed, wishing—oh, so fervently—that death might come to his relief. There was that within his reach which would have brought the desired dissolution, but he could not nerve himself to use it. He dared not appear before the great judge and that soul which he had sent to its last account. The brandy-bottle was on the rack, but to have swallowed a single mouthful then would have been impossible.

He lay listening to every sound, expecting each instant to receive a visit from the captain, who would come to tell him he was under arrest, when a knock, startlingly distinct and imperative to his overstrained nerves, caused him to spring to his feet in alarm. His voice sounded hoarse and unnatural as he said "come in," and one of the stewards entered. "Miss Clayton's compliments, sir, and if you



SHE HAD CALLED HIM A COWARD, AND HE KNEW IT WAS SO.

could not thus readily conceal the quivering of his lips.

The captain, overhearing the conversation, directed the chief steward to make a search of the deck and saloons, and when that functionary announced that Mr. Ogden could not be found, the passengers were, quite naturally, in a state of great excitement.

"Who saw him last?" the captain asked, when something like order had been restored.

"I met him shortly after midnight, when coming below," the elder gossip of the smoking-room replied.

"What was he doing then?"

"Going on deck for exercise in the hope of curing a headache, so he said."

"Did any one see him after that?"

There was no reply, and the gossip added:

"I heard his footsteps on the deck until I fell asleep. Then it appeared as if he was on the port side of the ship."

Laurie was gazing intently at the speaker, but he knew intuitively that Ruth had turned to look him full in the face. Now was the moment when he should make a confession, or declare himself to her a cold-blooded murderer. He remained silent.

To have spoken at that moment would have been impossible; his tongue seemed parched and swollen, while before his eyes danced sinister lights, whose fancied flames lighted up a

figure which he felt, rather than saw, was yet near the head of the table. He was no longer alone; the pale face of Clark Ogden, with hair matted and wet, was just before him, and he wondered vaguely if it would from this moment be his constant companion.

The steamer was quickly searched, and a dozen or more of the male passengers were with the captain on the quarter-deck when the report was made that the missing gentleman could not by any possibility be on board. "Call the stewards who were on duty last night."

Two men came from the saloon, and were questioned as to what time they saw Mr. Ogden. The fellow who had asked Laurie if he was sick, replied that that gentleman left the saloon shortly before the two came from the smoking-room.

"Did you see any one else?"

"Mr. Laurie was here when I came on deck to see if the lights were extinguished."

"Did you see Mr. Ogden?" the captain asked, as he turned abruptly to Ruth's lover.

"I? No, indeed—that is, I wasn't here but a few moments, and staid on the starboard side during the time."

"Do you think it would have been possible to have avoided seeing him if he had been on deck at the same moment?"

"I—we—the fact of the matter is that I

feel able she would like to speak with you a few moments."

"Where is she?"

"In the deck parlor, sir."

"Is she alone?"

"Yes, sir; the passengers are too much excited to think of anything, but stay on deck, as if believing poor Mr. Ogden might turn up unexpectedly like."

"Have— I mean, has— Did the captain learn at what time Mr.—Mr.—the missing man was last seen?"

"I do not know, sir. He is now with the officers who were on the bridge."

The steward waited an instant to answer further questions, but as Laurie did not speak again he retired, and the murderer tried to compose himself somewhat before answering the summons.

It was not difficult to understand why Ruth wished to see him, and he felt that the most difficult ordeal a man was ever called upon to go through remained for him.

When he entered the apartment, Ruth was seated on one of the couches, gazing out upon the deck where the passengers were excitedly discussing the mysterious disappearance, and although Laurie stepped heavily to attract attention, she gave no sign of knowing he was there.

"Did you send for me, Ruth?" he finally asked in faltering tones.

Turning slowly, she looked at him searchingly, he shrinking and growing faint under the accusation in her eyes.

"I thought you might have something to say to me, Mr. Laurie, before explaining that to the captain which he is trying to learn; therefore have come here where we can be more nearly alone than in any other part of the ship."

"Why shall I explain anything to him?" And the trembling man succeeded in making his voice sound reasonably firm.

"Do you dare ask that question? Do you insist on my repeating that which you know I saw?"

"Ruth," he said, as he advanced to take her hand, but she drew back with a gesture of repulsion, "will you not let me tell the terrible story as it is, regardless of what you saw, for I swear before Almighty God that I did not intentionally do this thing."

"Would you have me believe it was an accident?"

"It was, by all I hold sacred! I—"

"Don't prove yourself a coward as well as a criminal," she said, speaking in a low, sharp tone. "When such an accident as that occurs, it is only natural the alarm would be given; but you remained silent until certain it was no longer possible to aid your victim."

"I was too much dazed to know what I did. There was murder in my heart when the lie was passed, but I never threw him from the rail; of that I feel certain. We were submerged for an instant, and I became bewildered, thinking only of saving my own life. When next I knew anything, he had gone."

"Why did you not tell that story as soon as you recovered your self-possession? Why was the captain not made acquainted with these facts before you went to your cabin?"

"I wish I could tell you, but I can't. I have been bewildered—"

"Under the influence of brandy, the steward reports." And the woman he loved looked at him with scorn and contempt.

"I did drink, but it might have been so much water; my brain was on fire, and nothing could affect it."

"You drank to forget your crime. It is a coward's method. A brave man would confess all at once."

"No one could believe me. I should be obliged to say we were struggling, both on the rail, and every person will declare I pushed him over, intending to kill."

"Well, if your story is true, be man enough to repeat it, whatever the cost may be."

"I can't!" And he covered his face with his hands as he recoiled to and fro, until Ruth aroused him by saying sharply:

"You will attract attention by such actions. A person who can deliberately kill another should have more strength. Already I have heard it commented upon that you did not see Mr. Ogden, although you must have been with him on deck before he disappeared—I should say, before he was murdered!"

"Can I do nothing to make you believe my version of that horrible thing?"

"Yes. Repeat it like an innocent man to the captain."

"And then you—"

"I am not to be considered in the matter. It is well my dream was no longer, for to have learned this regarding you when it was too late would have been terrible."

"Then you cast me off?"

"Can you ask such a question? Do you think love would survive that dreadful scene?"

"If it had been you—"

"We won't speak of a possibility like that. If you succeed in hiding your crime, it will never happen that we shall meet again. I loathe you too much to ever wish to see one so wicked. It is a crime for me to remain silent, but if I do so I must pay the penalty as long as I live. It is useless to continue this conversation, for one does not willingly remain with cowards, even though it may be they are partners in crime."

She walked out of the room, moving her skirts aside that they might not brush him, and he followed her with his eyes until she descended the stairs.

Just for an instant came the resolution to follow the advice she had given, but before a step could be taken toward the knot of excited passengers, there appeared on his mental vision a picture of all which would result from such a course.

He saw himself shunned like one whose slightest touch is pollution; the arrest; the trial, the conviction, the sentence for wilful murder, and finally—

She had called him a coward, and he knew it was true.

The possibilities in case he made a confession were too terrible to contemplate for an instant, and he ran down the companionway to his own cabin, where, with hands clasped over his eyes to shut out the horrible sights imagination had conjured up, he cowered in helpless terror.

On deck every incident concerning the previous night was, quite naturally, discussed by the passengers. The missing man's room had been searched, with the idea he might have left behind something indicating an intention on his part to commit suicide; but nothing was found.

Clark Ogden had not appeared like a man who would so far succumb to a hopeless passion as to take his own life, and those who knew him best scouted the idea as something too preposterous to be entertained. That an accident had occurred seemed equally impossible. The sea was unusually calm, and he an old traveler who could hardly be suspected of carelessness, especially on such a night. The only remaining theory was that he had been murdered. But by whom?

The smoking-room gossips had ample material for their favorite amusement on the evening which followed, and the gentleman who had spoken with Laurie began a conversation which was destined to have serious results, when he said carelessly:

"Isn't it strange Laurie doesn't show himself? Of course, one can't be expected to mourn for a rival, and that rival an old sweetheart, but it would look better if he joined the others in trying to clear up the mystery."

"He is probably grieving over a lover's quarrel," some one suggested. "I have noticed that he and his fiancée didn't speak this morning, and there was rather a stormy interview in the deck parlor at noon."

"Then the trouble must have occurred since last night, for everything was, apparently, going on swimmingly when she retired."

"I was at the table when he came from his room, and she never so much as looked at him; therefore, something must have happened before that time."

"Do you fancy she also could have been on deck last night after I went below?" the elder gossip asked in a peculiar tone, and the gentlemen gazed at each other as if something startling had been said.

"Why, you surely don't intend to insinuate—" one began, but the previous speaker interrupted him suddenly.

"I never insinuate, but simply asked an ordinary question, which was called forth by your remarks. It is too serious a subject to talk about, and I for one am going below before something disagreeable or, perhaps, unjust can be said."

Again his tone was as if there was very much more in his mind than he felt willing should escape his lips, and from that hour Winfield Laurie was looked upon as one who should be shunned.

[To be continued.]

ORIGIN OF MEN OF GENIUS.

Columbus was the son of a weaver, and a weaver himself. Cervantes was a common soldier. Homer was the son of a small farmer. Demosthenes was the son of a cutter. Oliver Cromwell was the son of a brewer. Howard was an apprentice to a grocer. Franklin was a journeyman printer, son of a tallow-chandler and soap-boiler. Wolsey, Bunyan and De Foe were the sons of butchers. Virgil was the son of a porter. Milton was the son of a money-scrivener. Pope was the son of a merchant. Burns was the son of a small farmer. Samuel Johnson's father was a bookseller. Pope and Southey were sons of linen drapers. George Stephenson's father was fireman in a colliery. Elihu Burritt began life as a blacksmith. Richard Arkwright and Jeremy Taylor began life as barbers. Keats was a druggist, and Humphry Davy was an apothecary's apprentice. Bunyan was a tinker, and Ben Jonson was a bricklayer. William Chambers started life as an apprentice to a bookseller.—N. Y. Ledger.

SENDING CUT FLOWERS BY MAIL.

It is sometimes desirable to send cut flowers by mail, and very few people are aware that it can be done conveniently, so as to preserve their bloom and freshness. A light, wooden box is necessary (cardboard will not answer). Line this with wadding, and place a sheet of tissue-paper over it. Lay the flowers in rows, side by side, not on top of each other, allowing the blossoms of each row to rest on the stems of those adjacent. Tack very closely, so that the flowers may not be injured on the journey. It is well for them to stand in water for several hours before packing, in order that they may imbibe sufficient moisture to keep them from withering. They should not be sprinkled much after they are in the box, for as they are deprived of air, it may produce mildew.



HOW TO WASH FLANNELS.

Dissolve fine shavings of Ivory Soap in boiling water, and when cool enough to bear your hand in it, immerse one piece of flannel. Don't rub it with soap but knead it with the hands. Don't rinse in plain water or in cold water, but make a second solution, warm and well blued, for this purpose. Use a clothes-wringer; hand-wringing is insufficient. Dry quickly out-doors or before fire. If left to stand wet, flannel shrinks.

Cut out these directions and tell the servant to follow them with Ivory Soap. It keeps the flannels very soft.

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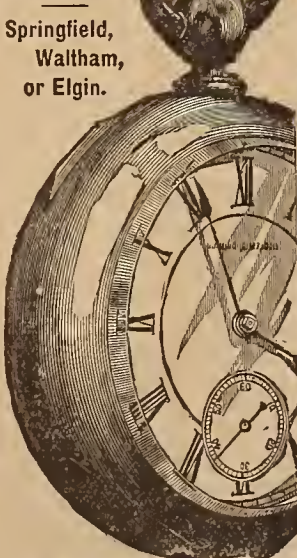
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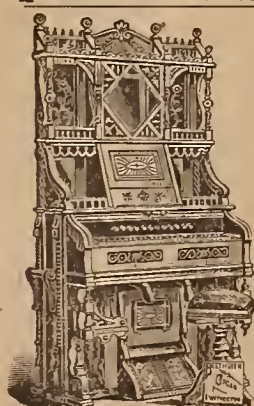
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Our Household.

WOMANHOOD.

Lightly slept she on the threshold of her five and twentieth year,
She had yet the world before her—naught of past to dread or fear.
And she looked with happy longing, as the years before her stood
Richer, brighter, better, broader—heritage of womanhood,
Past the wavering, girlish fancies, past the future's fearful gloam,
For her heart had found its double—settled now no more to roam.

So she dreamed of happy home-life in to-morrow's fancy day—
Home where she could sit in silence, sit and love her life away;
Where the joy of loving deeply brings no thought save that of bliss.
Where the sorrows born of living flee at touch of husband's kiss.
Where the strong arm is protector, and the weak heart strong alway,
Where the cynic's snarl is vanquished by the sunburst of love's day.

Blessed thought of home-life, sweeter than ever thought beside could be—
Home where two shall build their heaven, loving ever perfectly
Would the home-life be kept empty naught besides e'er enter there?
Are they fearful lest the hearth wealth scanty prove with three to share?
Blessed thoughts of baby fingers, patter soft of baby feet,
Ah! there's room for child and husband! woman's hearts are wide and deep.

—Ella S. Elliott.

CARE OF ONE'S GLOVES.

GLOVES are of great antiquity. Reasons exist for the ancient Persians wearing them, and the early Greeks and Romans used some kind of hand covering when performing manual labor, though the precise form is not known.

Their manufacture was introduced into the British Isles as early as 1464.

The glove industry of the present day is both extensive and diversified. Paris is the most important center for glove-making, and produce about the finest. But it is at Grenoble that most of the French gloves are made. Worcester, England, produces a great many and English makers have no competitors. Quite a number are made at Brussels and Copenhagen.

Buckskin gloves are manufactured at Gloversville, N. Y., and from one hundred and forty separate factories in that place, not less than two thirds of the gloves in the United States are sent out. To a small extent kid gloves are made in New York City.

Such an important feature of the toilet

hardest color to find good. The browns and grays are the best all-around glove.

The glove should be well powdered on the inside and care taken in putting it on the first time, getting it on straight and having the fingers well on.

There are many ladies whose hands chafe and get sore if anything but a kid glove is worn. Something in the dye of the present-day yarns is very aggravating when made into mittens, so use kid gloves wherever it is practical.

Perspiration is the ruin of the best glove. Using a muff conduces to this. To allay the perspiration, powder the hands before putting them on.

Instead of straining the buttonholes, sew the buttons forward until the glove is a little stretched, then set them back.

Mend all rips in gloves with fine cotton, which can be had at any of our large glove stores in assorted colors for 15 and 25 cents a bunch.

A glove should fit well and close, while not too tight.

They come in all colors and a great many styles. One who has never visited a regular glove store would be very much surprised at the novelties in this one article.

Turn the glove in removing it, and straighten it all out before leaving it, if you expect to find it in a condition to put on a second time. Mend all rips while small, and always secure the buttons on a new pair by the addition of a few stitches before wearing them.

Avoid loud colors, and if possible, let them either match or harmonize with your suit. The fewer clothes you have the more pains you should take to have them correspond throughout.

A good pair of gloves well treated will last a year. For ten cents light gloves can be cleaned to last another while longer. If of a good quality, a good light glove can be dyed a darker color.

One should always have a best pair and an ordinary pair to wear for shopping and market.

Keep a dark glove away from the face, as it will often leave a mark.

Any color can be worn with a black dress, but a black glove does not look as well with all colors of dresses, unless it matches the trimmings of the dress.

They are always a nice gift for a lady, and one article of which she can never have too many.

Keep those you are not wearing wrapped in tissue-paper and away from dampness, as they will mold in spots unless care is taken with them.

It is a good plan to lay in several pairs when you are in a house noted for their fine gloves, as it is always a good investment.

Dr. F. H. Ingram, in the New York World, says:

"The glove is an essential part of a woman's attire, as a matter of adornment and one of essential service. Warmth and cleanliness, as a safeguard against variations in the weather, and a protective influence in general, is the function of the glove. The flesh of the hand is as delicate and sensitive as that of any other portion of the body; in fact, more so than that of either face or limbs. It must, therefore, be furnished with a protective covering at such times as external conditions warrant.

"Cold hands, chapped hands, rheumatism and many other complaints may often be prevented by a proper glove, the variety of which depends to a certain extent upon the choice of the wearer.

"Undressed kid, silk and lisle thread may be classified as best. The fully dressed kid is practically suited for only evening wear. In cold weather a heavier glove should be worn. Woolen and dogskin are to be preferred, but if these appear to you as unsightly, you may clothe your hands with a glove of lighter texture and wear a muff. The muff is, in its province, of the same character as the glove, but it is an article of convenience which is rarely ornamental.

"A few rules in regard to gloves may be worthy of your observance. Wash and thoroughly dry your hands before placing your gloves on them; do not have them very tight about the palms and wrists; let them be of porous material and in all respects comfortable. In taking them off turn them inside out for airing.

"There are persons who think that gloves should be worn at night in order to preserve the softness of the hands.

"If you wish your hands to look faded, wear gloves at night; but if you wish them to preserve their natural charac-

teristics, use gloves when you are not in repose.

"While walking about in sun, wind or rain, gloves will do you a very good service; at night, however—and here the hours of sleep are referred to—they are ill-suited to any one.

"The custom of wearing gloves at night originated with the ancient Egyptians. Cleopatra, it is said, numbered this among her eccentricities; but the folly was more fully developed during the reign of Louis XIV, of France. To-day persons who affect the manners of the antique French may be selected as conspicuous among those who wear gloves at night, and a cursory glance at their hands will be sufficient to make an indelible stamp on the mind.

"Naturally the hand of woman is molded by what she does with it. Its various lines, under ordinary circumstances, mark the contour of the different parts of the body. All should be in harmony. But if you put a pasty, greasy and leathery covering over the hands, you make them fade in advance of their time."

LOUISE LONG CHRISTIE.

CABINETS.

There are some boys who like to put in their spare moments with the penknife, hammer and saw. So many pretty and useful things can be made to adorn home and be of use as well.

Our corner cupboard for medicines has been invaluable.

The cut we give is not hard to construct, and the adornment for the door can readily be done with a scroll-saw and attached to the front with brads. They are prettier made of woods of two colors and then varnished. All the nail holes should be filled before the first coat of varnish, and if the putty is colored to match the woods, very few of them will show after the last coat of varnish.

China cabinets are now made with three of the sides glass, and the back and shelves must all be highly finished and varnished. The price is usually from \$20 to \$30 in the stores, but a home-made one would cost less.

The old styles in furniture are being imitated largely, and those who have one of their grandmother's pieces are to be envied.

L. L. C.

THE USEFUL PLOW.

A country life is sweet!

In moderate cold and heat,

To walk in the air how pleasant and fair!

In every field of wheat,

The fairest of flowers adorning the bowers,

And every meadow's brow;

So that I say, no courtier may

Compare with them who clothe in gray,

And follow the useful plow.

They rise with the morning lark,

And labor till almost dark,

Then, folding their sheep, they hasten to sleep

While every pleasant park

Next morning is ringing with birds that are singing

On each green, tender bough.

With what content and merriment

Their days are spent, whose minds are bent

To follow the useful plow!

—Anonymous.

SWEET APPLES, CANNED.

Apples are scarce and high-priced this winter, and the thrifty housewife dislikes to see even the tough winter-sweets go to waste.

Take one cupful of raisins, two cupfuls of sugar and three cupfuls of water; put them in a granite or porcelain kettle, place over the fire, and when the syrup boils, add enough sweet apples, that are pared and quartered, to fill three one-quart cans.

If one is not very good at guessing, he might fill a can three times with the raw quarters, allowing a few extra for shrinkage, and then be more sure of the right amount.

After the apples are boiled tender, slice in one lemon, mix carefully if you do not wish the quarters broken and muddled. We prefer to slice in only the yellow part of the peel to the lemon, in very small pieces, then remove the white covering, which is so apt to be bitter, and then slice up the rest of the lemon in the sauce. It

takes a little longer, but the bitter flavor that comes with the whole lemon-skin is very offensive to some people. Do not let the fruit cook much after adding the lemon; it will season the apples enough by being canned with them a few days, and boiling lemon is very apt to render it bitter.

One can use more raisins and lemon, if they wish a richer sauce. The proportions given are for a plain, wholesome sauce that will give no one the dyspepsia.

There are some varieties of apple besides



CABINET.

the sweet that may be used in this way. We have some that in some years we do not think of saving, as they are tough and rather tasteless, never cooking up into soft apple sauce, but with this recipe they are vastly more palatable than the dish of dried apples.

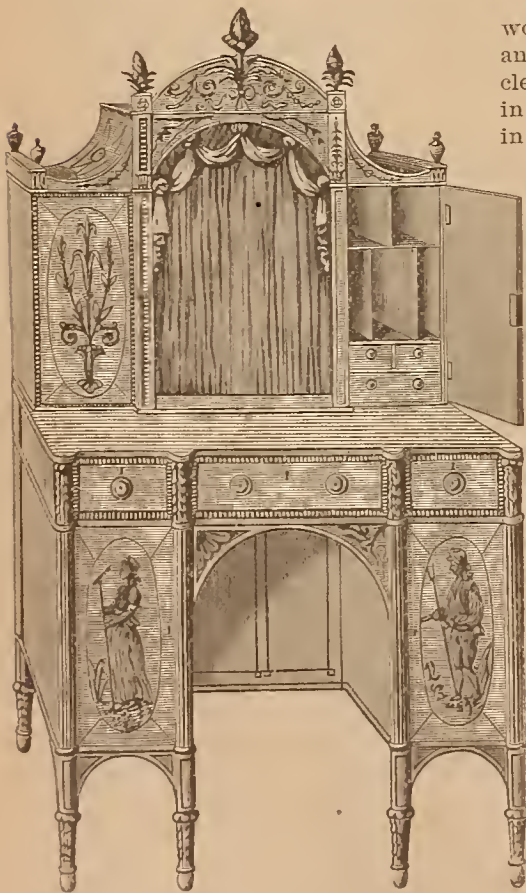
If the tender apples are rotting rapidly, why don't you fill the empty fruit-cans with apple sauce, if there is no other way to save them. Stew the apples and sweeten them, as in ordinary apple sauce to be eaten fresh, and put up hot in the cans and seal tightly. A little extra care must be used to shake and press the sauce together firmly, so that there will be no air bubbles sailing around in the can; they will always raise the mischief with canned fruit of any kind. Always try to get everyone of them out, which can be easily done by running a silver fork around between the fruit and side of the can after being filled. Always fill a can to the brim with juice, after placing a round piece of paper over the fruit at the shoulder of the can. Use white paper, as it will prevent the fruit from molding.

I would call attention to another point in canning fruit, that was given in a previous article. After the rubber is on, and the top is screwed down as tightly as possible, then do not try to tighten again until the can is cool, or there will be danger of pulling off the wire knob that is soldered to the side of the cover to catch the can wrench on. The can-cover should be rinsed out with warm water before placing on the can, for if too cold it will crack the glass it comes in contact with, as that has become heated from the hot fruit.

Before a can has been put away, take a tack-hammer and gently pound down the rim of the cover to the shoulder of the can, and then you are sure it is a tight fit. It ought not to be necessary with new covers, and yet I have found it so. It takes but a few moments and does no harm if you remember it is glass that you are pounding upon and do not hit too hard.

If one wishes to be extra sure their can is tight, let it stand upside down on its cover for a few hours; if no juice escapes then, it must be secure enough for all practical purposes; and if not quite tight, the cover may be pounded down or tightened without scalding the fruit, if it is done within twenty-four hours after canning.

GYPSY.



CABINET.

needs considerable study, and it is surprising to see what a part it plays in both prose and poetry.

In the first place, do not make the mistake of thinking that you are going to get as good wear out of a cheap pair of gloves as you would out of good ones, that you will have to pay from \$1.60 to \$2 a pair for.

There is no economy whatever in buying a black glove under \$1.75, as this is the

THE OLD VIOLINIST.

When the old man times the swing of his bow
To the flow of his favorite tune,
And he hears the voice of the long ago
In the ripples of sweet "Bonnie Doon,"
And his pale cheeks flush with a rosier glow
Like the clouds of a fall afternoon,
There's a plaintive wail to the rhythmic flow
Of the dear old songs that our mothers know,
Like the loving croon when the sun is low
Of a dove in the month of June.

When his fingers thrum the forgotten strings
For the tunes his grandfather played,
Till the poor old tormented violin sings
The strains of the "White Cockade,"
And the songs that float on the bluebird's
wings
In his deaf ears warble and fade,
There's a thrill in the graybeard's touch that
brings
The clasp of the waist in the waltz that flings
The blood to his heart like the kiss that clings
To the lips of an amorous maid.

When he tips the bridge to his listening ear
For the chords that swing thereon,
And he feels a kiss on his thin, white hair,
For his "Jo John Anderson,"
And the frost melts out of the flosses there
The winters of life have spun,
There's a tender dream in the sweet old air
Of a rush of lips when cheeks were fair,
Like a dash of rain when fields are bare
And parched in the autumn sun.

When his hale old frame swings to and fro
Like the trunk of a swaying pine,
And the friends of his boyhood come and go
To the notes of "Auld Lang Syne,"
And his comrades' call is a weak hallo
That faints to a farewell sign,
There's a touch on the strings as soft as snow
In the sighing pines where the shadows grow,
When to dying ears the night winds blow
The moan of the shivering kine.

Edward S. Hopkins, in Judge.

IN CLEANING-TIME.

Yea, verily, it does seem as if his most satanic majesty "walked up and down on the earth, and waudered to an fro," especially during house-cleaning time, thinking that now, if ever, would be the time when the usually pleasant-tempered housewife would be found off her guard and easily "upset;" when the husband, missing the customary reinforcements that are continually traveling the well-known road to his heart (through the stomach), is already loaded to the muzzle and ready to "go off" at the slightest pressure; when the son, who has just slipped upon a cake of soap carelessly left on the stairs, and tripped over a loose carpet, says some words under his breath that he don't want mother to hear, and the little daughter is warued at every step to "Let that stand alone; don't you see it is piled full of things?" "Mercy on us! There, you've tipped over the new lamp; do be careful!" "Have you no eyes, child? Where will you go next?" etc., ad infinitum.

You housemothers who do your own work have all been more or less near to this undesirable goal of tired-outedness, but perhaps you have not all received so sharp a rebuke as I did yesterday from my little six-year-old son. It did not seem as if I could help being cross and speaking sharply to my little lad, even though he had done nothing

antly to the dear folks at home—from that cause at least.

I had been thinking that Jack must have something to worry him that made him look so solemn, or else he was not well, but last night when he came in I saw him look at me out of the corner of his eye, and his face cleared up wonderfully when he saw that mine was not drawn down long enough to fill a horse-collar and that there was no sign of an approaching thunder-storm. Soon he was chatting and laughing, just the same merry, good-natured old Jack that has given me a home and love and care for eight years. Nothing had ailed him but the depressing effect of my drawn-down visage.

Oh, mother, don't, don't do it! Let the work go! You need not be slack, nor very late with your work, but if the parlor carpet is not taken up every spring, it will not suffer badly, if the room is as little used as many farm-house parlors are, and if every bit of the woodwork is not repainted once a year you will be none the worse off when the year comes around again. But the children are growing up; if you are ever to influence them for good, if you are ever to guide their rising ambition in the path you would have it to go, you must do it now; now is the time to kiss the soft little faces, and hold the light little bodies in a close embrace. All too soon they will grow up and get away from mother's influence part of the time. Happy the mother whose children have learned to believe in mother's care and love and interest. Our Johns are getting older, like ourselves; they get tired and discouraged, and the sight of the wife's good-natured face and the sound of her cheerful voice will be better than medicine for them. It is a hard man indeed who will not brighten up and be cheerful under the influence of home sunshine, and oh, how these men—the roughest and most "set" of them—do like to be petted if they think it really comes from the heart, and is not put on for the purpose of flattering them into granting some indulgence!

Love is a great civilizer, and creates an atmosphere very conducive to the healthy, moral growth of the little ones, and takes all the "bear" out of the disposition of the father and head of the family. I would rather hear my little boy's "I love you, mamma," than all the compliments showered upon a society belle. I would rather know that my husband's heart is at home with his wife and child, no matter where business calls the body, than to have my dearest earthly wish granted, if to secure it I had to sacrifice these blessings.

FLORENCE H.

HOUSEHOLD HINTS.

Loosen that cough by putting over the chest a poultice made of onions fried in plenty of lard.

A very effective remedy for a cough caused by a tickling in the throat is made by adding to the beaten white of an egg the juice of a lemon, and then thicken with sugar.

It is at the top that comfortables and quilts wear out and soil soonest. Prevent this by sewing at the top of these a strip of calico, doubled in the middle, half being on inside and half on outside of comfortable. This strip can easily be removed and washed when soiled.

Make yourself a pair of sleeve-protectors of the legs of stockings; hem these at one end and run an elastic in the other.

You sleep in a cold room and are kept awake by cold feet. Place a sack of warm sand in foot of bed to warm it, some time before retiring. The sack can be heated in the oven if it has a slip

of heavy goods. Remove slip before putting sack in bed.

Make the little one's winter nightgowns in the combined style, with feet. These can be made of the pater's cast-off woolen pants and coats.

Because it is winter, don't hermetically seal up your windows and poison yourself with impure air; instead, raise the lower sash an inch and place under the sash an inch board the width of the window. By this means the pure air will come in between the sashes, and draft will be avoided.

You are tired of tough steak and don't like boiled beef. Why not try beef loaf?

BEEF LOAF.—One and one half pounds of ground beef, one egg, one cupful of bread crumbs, half a cupful of milk, salt and pepper to taste; mix thoroughly, make into a loaf and bake.

SOPHIA N. REDDIN JENKINS.

HAIR-PIN AND CROCHETED EDGING—FANCY BRAIDWORK.

To make these edgings, a foundation of hair-pin work or fancy braid must be used.

For Fig. 1.—Using the hair-pin work as a middle, crochet a chain of five and join with a single crochet to every alternate loop of the hair-pin work.

Second row—Crochet three chain, then three double crochet into the first loop, fasten with a single crochet in the beginning of the next loop, then three chain and three double crochet in the second loop.

The other rows after this are easily followed from the illustration.

SHOE-BUTTON BOX.—Make the bottom and sides of the box of pasteboard, three inches square, and the triangular ends to fit. All must be covered with pougee silk, neatly overhanded around the edge. A strap must be placed upon two of the side pieces of inch-wide ribbon to hold papers of needles and a card of shoe buttons. In the bottom of the box is a large spool of black linen thread, which is fastened to the other two sides. Put a button and loop on the two opposite points to fasten it shut when not in use.

C. I.

A SONG OF NEED.

When you shall dwell in Tranquil land,
Where sweet the summers be,
Lean in the light and kiss your hand,
And kiss your hand to me.

For I, who dwell in Lonely land,
By that sweet sign shall see
That Love to you is kind and grand—
So kiss your hand to me.

When you shall dwell in Midnight land,
Where tears and moanings be,
Fold on your heart the unknissed hand
And sigh your soul to me.

And I, though lost in Lonely land,
Will send an answer true,
And groping blindly for your hand,
Creep in the dark to you!

—F. L. Stanton.

HOME ENTERTAINMENT—A PALETTE PARTY.

If the name suggests a vague fear that the entertainment to be described must be limited in its enjoyment to artists or persons interested in art, let me forestall such a sentiment by saying that this very plan was adopted for an evening's entertainment when no one present was at all skilful in the art that a palette naturally suggests. Everyone, however, was ready to do his share toward the general amusement, and a delightfully sociable and entertaining affair was the result.

The hostess numbers the palettes beforehand, writing at the top of each the name of a guest and under it a list of numbers, from one up to as high a number as will include all who are to take part. A blank space is left at the right of each number. The thumb-hole is tied through with a narrow ribbon, and on the end of the ribbon is fastened a tiny lead-pencil. Any adornment in gold paint or colors can be added to the palettes as taste and skill suggest. The palettes can be bought at almost any art store, made in wood, celluloid, water-color paper or cardboard. If the art store fails, a picture-framer might consent to cut from a pattern the number of palettes desired.

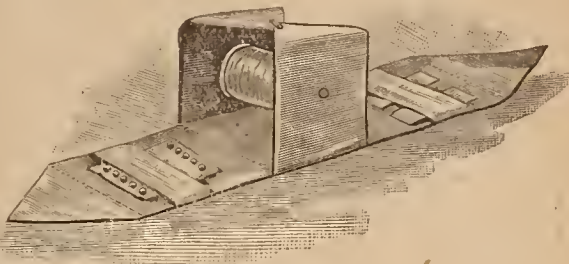
As each guest arrives he receives a palette, with the order to find his partner by matching the ribbon attached to his palette. Care must be taken to distribute the colors, so that each gentleman secures a lady. When everyone has arrived, an easel is placed where a good light falls upon it and where it can be seen by the assembled company. A large, smooth drawing-board is placed upon the easel, and a sheet of drawing-paper, two feet square, pinned on the board. (Smooth pieces of strong, brown paper answer the same purpose as the drawing-paper.)

The hostess then asks the person whose palette is labeled number one to step up to the easel and draw with charcoal a certain live object. She whispers the name to the one who is to draw, and gives him one minute to complete the portrait. The others are to bend every energy to guess what is being drawn, and when the minute is up each one enters his guess upon his palette

in the blank space at the head of his set of numbers.

Number two is next called upon and receives another order for a portrait which he must make in one minute. The hostess continues, by consulting a private list of her own, to call for drawings of different birds, animals or fishes, and her guests enter their guesses on their palettes.

The artistic follower may feel more at home in executing his one-minute sketch, but those unskilled have the advantage on their side in evoking the larger amount of merriment. When all have finished, a committee is appointed to examine the palettes. By comparing the list of guesses on each palette with the list of the hostess, the prize-winners can be easily determined by those who have the most number of correct



SHOE-BUTTON BOX.

guesses. If desirable to increase the number of prize-winners, choose those whose drawings are considered the best, and attach a booby prize to the very worst attempt.

The pictures should be labeled with the name of the bird, beast or fish each represents—"This is a stork," "This is a cow," etc. The palettes may be worn at the buttonhole (on a gentleman) and the belt (of a lady) during the remainder of the evening, and then carried away as a souvenir of as jolly and unique an entertainment as has yet been discovered.—Alice M. Kellogg, in Home-Maker.

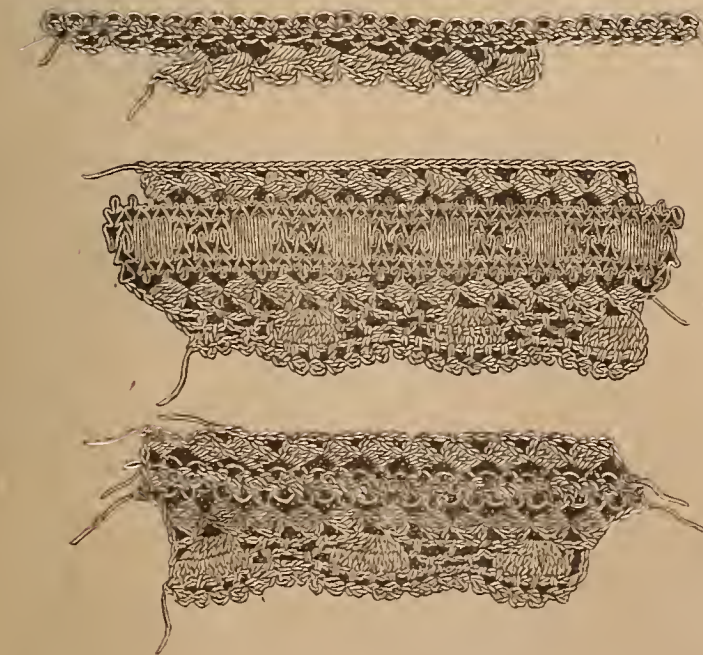
DON'T WORRY.

One day at a time, conscientiously lived up to, will keep the eyes bright and the cheeks round and rosy. Don't begin to worry about things days beforehand. It will be time enough when they happen. It is the dread of what may come, not what is, that makes one old before the time. If you lie awake half the night worrying about something that is going to occur the next morning, you will be far less able to face bravely and work out the problem than if you had made an effort and thought of something else till sleep came. It is not half as hard as it sounds, and will grow easier every time you try it. Perhaps, after all, the disaster will not befall you, or will be less awful than you anticipated, and just think what a lot of unnecessary wrinkles you have worried into your face.

Another thing, don't torment yourself about what people are going to think about this and that action. No matter what you do or leave undone, some one will criticize you severely, and the best rule for getting through life with comparative comfort is, after you have made up your mind as to the propriety and advisability of a certain course, pursue it calmly, without paying the slightest attention to the criticisms of the lookers-on from the outside. You see, just because they are on the outside, they can only see the surface. It does not matter in the least what they think.

"HOW DO WOMEN KILL TIME?"

The guileless man who asked this foolish question got his answer in the Washington Star, from a woman, who, with her husband, two children and two servants, lived in a house with nine rooms. Having kept a statistical account for one year, she gave the results as follows: Number of lunches put up, 1,157; meals ordered, 963; desserts made, 172; lamps filled, 328; rooms dusted, 2,259; times dressed children, 786; visits received, 879; visits paid, 167; books read, 88; papers read, 533; stories read aloud, 234; games played, 329; church services attended, 125; articles mended, 1,236; articles of clothing made, 120; fancy articles made, 56; letters written, 429; hours in music, 20½; hours in Sunday-school work, 208; hours in gardening, 49; sick days, 44; amusements attended, 10. Besides the above, I nursed two children through measles, twice cleaned every nook and corner of my house, put up 75 jars of pickles and preserves, made 7 trips to the deulist's, dyed Easter eggs, polished silver, and spent seven days in helping to nurse a sick friend who was ill, besides the thousand and one duties too small to be mentioned, yet taking time to perform.



HAIR-PIN AND CROCHETED EDGING.

to rouse my temper. He looked up at me with big, astonished eyes a moment and quietly remarked:

"Mamma, I wish you wouldn't clean house any more."

"Why, my lad?" this kindly enough, for I felt guilty.

"Cause it makes you naughty."

I just sat down and took him in my lap and petted him until he forgot mamma had been "naughty," and mamma on her part resolved never again to allow herself to get so tired it would be difficult to speak pleas-

Our Household.

THAT OLD PARASOL.

DON'T throw it away; the frame is just as good as new, and a little ingenuity and a small amount of material will do wonders in making something charming out of it. Get two squares of silk mull, or if you can't find that, a fine hernani, or almost any other really fine, handsome, thin material. There are eight ribs to the average parasol; and two squares exactly in handkerchief shape, so placed that one point comes midway of the side of the other, will just cover the parasol. Lay these squares over the frame and attach the points very lightly. If carefully done, a pin will hold them until properly arranged. Then cut a small hole in the middle of each section; through this the tip of the stick is to be passed, the circle, or rim, around it having been previously removed, which is easily done by taking out the little rivet that holds it to the wood. Out of the material that comes off at the sides when the squares are cut make a tiny puff.

Put this around the tip and put the little rim back in place. The edges of the material may be hemmed or turned in and covered by a ruffle of lace. If desired, a lining may be put in. To do this, it is well to have a pattern taken from the cover as it originally was on the parasol.

While it is considered quite an undertaking to cover a parasol nicely, it is by no means the formidable task that many people seem to think. What is required is exceedingly care and neatness and a very close attention to the minor details of the job. Once having tried the experiment, the careful needlewoman will experience but little difficulty in doing a good piece of work. A bit of crepe de Chine, crepe lisse or other material costs but little, and will make a very handsome finish to any one of the score of old frames, many of them with really elegant handles, which may be found in almost any of the store-closets or wardrobes in the country, and which are, as a general thing, thrown aside as absolutely worthless.

Fine work is by no means a monopoly; and while there is a certain handling, which may be called "style," in the putting up of these goods, the neatness which is required to do a first-class job may be acquired by almost anybody. A trimming of lace, plaiting, ruching and puffing, indeed, garniture of any sort which is made of material, can readily be arranged by any lady of ingenuity; and as there is in many families a greater amount of good taste and wit than money, it is well for the wives and daughters to realize that they can, with but trifling cost, supply themselves not only with parasols, but with many other beautiful things.

TRIED RECIPES FROM OUR CONTRIBUTORS.

COLD STEAK.—Sprinkle pieces of steak with flour, salt and pepper, put them into a deep pudding-dish with alternate layers of sliced or canned tomatoes and butter; cover closely, and bake slowly for two hours.

WHITE GEMS.—Two eggs, one cupful of sweet milk, two teaspoonfuls of sifted flour, two teaspoonfuls of baking-powder, one teaspoonful of salt, one of sugar and one tablespoonful of melted butter. This will make sixteen gems and requires a hot oven.

SAUSAGE.—Fifty pounds of meat, two and one half ounces of allspice, twenty ounces of dairy salt, three ounces of black pepper, two and one half ounces of ginger, one and one half teaspoonfuls of cayenne pepper, two ounces of saltpeter and one ounce of sage.

EGG GRUEL.—This will generally cure a cold if taken as soon as the slightest symptoms appear. Beat the yolk of an egg with a teaspoonful of sugar and a small pinch of salt; stir into this gradually a cupful of hot milk, then the white of the egg beaten to a stiff froth. Drink at once.

AMHERST PUDDING.—One cupful of molasses, one teaspoonful of soda stirred into the molasses, one tablespoonful of butter, one teaspoonful each of cloves and cinnamon, one cupful of raisins, flour sufficient to make as stiff as cake batter. Steam three hours. To be eaten with hard sauce.

Making a hoe-cake for my husband, who is a southerner, I thought of Gypsy and her trials. I shall try to help her. If you do not possess a regular "baker," the next best thing is a cast-iron spider, or, as some say, skillet; this must be kept for bread. Grease the spider well, sprinkle with dry meal; for the first time put in a thin cake and

bake; do not try to turn; it will be nice for the chickens. Grease well and put in the cake at least one fourth of an inch thick. Do not cook too fast; when it leaves the sides and seems to be two thirds done, slip a thin-bladed knife under to be sure it does not stick. Now raise slightly with a knife, take hold with both hands (tips of fingers) and lift and turn toward you. If too quick it will fold, if too slow or lifted too high it will break. If you do not have meal made from southern bread-corn, you will need to use a little flour. I usually turn my cakes with two knives, as you would a huge pancake.

PUMPKIN PIE.

2 cupfuls of stewed pumpkin,
1½ cupfuls of sugar,
2 eggs,
2 teaspoonfuls of corn-starch,
1 teaspoonful of cinnamon,
½ teaspoonful of cloves,
A little grated nutmeg,
½ teaspoonful of salt,
1 quart of rich milk.

GINGER-SNAPS.

1 cupful of molasses,
1 cupful of sugar,
¾ cupful of melted butter,
¾ cupful of sour milk,
1 tablespoonful of soda,
1 tablespoonful of ginger.

COOKIES.

2 cupfuls of sugar,
1 cupful of butter,
1 cupful of cold water,
A pinch of soda dissolved in water,
1 teaspoonful of vanilla.
Roll as thin as possible. M. B.

BUCKWHEAT CAKES.

The jolly buckwheat days have come,
The happiest of all the year;
Without, King Winter gives lots of fun,
Within, are those tender cakes, so dear.

Some seem to think that buckwheat cakes belong to the mysteries of cooking, and while they love them dearly, do not attempt the trial mixing. Also, if the batter must be saved from each baking to start the next, they will have to make them every morning or the batter will sour. Mistaken again. If you make hop yeast bread, take a cupful of the sponge when making bread, and put in a glass can or bottle, and seal or cork tightly.

When cakes are wished for breakfast, the batter should be prepared the night before. Take a pint of buckwheat flour and a pint of corn-meal and Graham or coarse flour, mixed, and put in a large bowl or a crock holding a couple of quarts. Turn in the cupful of yeast from the can and rinse the can out thoroughly with warm milk or water, and turn on the yeast. Be careful the milk is not hot enough to scald the yeast. Stir up the batter and put in wetting enough so that it will be about as stiff as the usual bread sponge, and set it in a warm place until morning. Then add a teaspoonful of salt and one of soda dissolved in warm water enough to make the batter about as thick as ordinary pancake dough. Fry on a hot griddle. We use milk and water mixed, half and half, for the wetting; the cakes are more tender than where all water is used. Save about a teaspoonful of the batter and put back in the can; cork tightly and set in a cupboard where it will not get chilled, and it will start the next batch. You can have the cakes every morning, or there may be several days between, and as the yeast is shut up tight, it will not lose its strength or sour in any reasonable length of time. The quantity given will make a breakfast for four or five people, unless they are very hearty eaters.

There was a recipe in the FARM AND FIRESIDE last winter for buckwheat cakes which we liked very much, but not quite equal to this one, we think. This lady made the batter fresh every time, from equal parts of buckwheat, meal and Graham flour, a little sugar and salt, and sour milk and soda for wetting. They are very nice, and I thanked her many times while using the recipe. The one given first was from the famous "Jennie June's" recipes.

BAKED OATMEAL.—Some dislike oatmeal because "it's so sticky," or it is sure to be scorched. Try the new way and bake it.

Take the ordinary amount you use for a meal, stir in the necessary quantity of salt, and pour on as much boiling water as you would use if it was cooked on top of the stove. Stir thoroughly and place in the oven for fifteen or twenty minutes. There will be no more stirring, no scorching, and the kernels fill up as plump and tender as wheat, almost, and it will not be "sticky" as when cooked in the ordinary way. Serve hot with cream and sugar and it is good

enough for a king. It will slice nicely when cold, and can be used in that way; or you may slice and fry on a hot griddle, the same way ordinary corn-meal mush is fried.

Oatmeal makes a good dish for supper, as the children who have to eat cold dinners at school crave something warm for supper, and this cereal seems to fill the bill completely when nicely prepared, and is much more healthful than a "boiled snapper." Vary the routine with rice and cracked wheat, and they will not become tired of either.

GYPSEY.

THE MIDDAY MEAL.

"And what have you for lunch, dear?"

The little basket is shyly held up for my inspection. A clumsy sandwich of sour bread and thickly-cut, underdone ham, some baker's sweet cakes, a chunk of taffy and a slice of mince pie. Shades of Herod! what a slaughter of the innocents! And seventy-five children out of one hundred are similarly equipped for the noonday lunch.

Put a bit of food into a tin pail, cover it closely and set it aside for a few hours. Then try to eat the luncheon. The stomach revolts at once. How much worse, then, for the undeveloped digestive organs of children.

Never use a tin pail or box for luncheon. A little basket costs no more, and a daily bath under the faucet, with a good airing, and an occasional plunging into clean, warm soap-suds, rinsing well afterwards, will preserve it sweet a long time. If laundry be a consideration, fit a fresh piece of clean white or manila paper—grocery-bags will do—inside the basket daily. Japanese paper napkins can be bought by the quantity for a few cents, and a couple folded on top of the food. A child that sees such dainty provision for its comfort washes its hands and eats tidily.

Sunday's dinner is usually somewhat elaborate. Prepare some of the dark meat, in preference to the white, of the cold fowl, or some thin slices of the cold roast of beef or mutton. Pork should be tabooed for children as strictly as by the Mohammedan, and veal is almost as bad. A well-done mutton chop is wholesome, but meat is not a daily essential. Pie should be sparingly used; cake also, unless of the simplest kind, and candy as well. What, then, for sweets? you ask. Fruit; fresh, ripe, wholesome fruit, without stint. Berries and cherries, peaches and pears and grapes, apples and oranges, lemons, bananas; surely the list is long enough and varied enough.

Then there are nuts, and children may eat a quart with impunity, and a pinch of salt.

An egg boiled five minutes is hard, but indigestible; boil it ten and it digests readily. Occasionally make sandwiches of chopped eggs, some cold fish, flaked and boned; season with a little salt, mustard and oil; cut the bread thin, butter lightly and cover with the prepared fish. Another sandwich is made of chopped sardines with a few drops of lemon juice squeezed over, and yet another of the giblets of a fowl, minced and mixed to a paste with a little melted butter.

When you make cranberry sauce, put a few spoonfuls into a tiny cup to cool and turn out whole for the lunch-basket. Boil the breakfast cereals until they jelly; mold, sprinkle with sugar, and see a child enjoy them. Put a few tender lettuce leaves, some broken celery, a sprig of fresh cress and a tiny salt-shaker into the basket. These green things are nature's health preservatives.

A cold, baked sweet potato tastes good to a child. A simple lunch of good bread and butter, cut and spread evenly, with a potato, an apple and orange, and a handful of fresh nuts already cracked, is satisfying and wholesome.

When you have a pineapple, save a few slices, cover with sugar and put into a jelly glass that has a cover. An orange and banana, sliced and sweetened, and a spoonful of grated cocoanut, is a combination sweet to a child's palate and stomach. Cheese used in moderation assists digestion. Stewed prunes are very wholesome; so is apple sauce, put into the useful jelly tumblers or spread on buttered bread, and a baked apple is the sovereignest thing on earth for the stomach.

These hints are intended more especially for winter months; spring luncheons should be altogether different. Perhaps the subjoined menus for the five school-days of the week may prove of service to mothers whose time is filled to overflowing with countless duties.

Monday—Cold fowl, cranberry sauce, bread and butter, cheese and fruit.

Tuesday—Egg sandwiches, jellied oatmeal, fruit and nuts.

Wednesday—Cold meat, stewed prunes bread and butter, fruit.

Thursday—Flaked fish sandwiches, cheese, baked apples, nuts.

Friday—Sardine sandwiches, jellied wheat, bread and butter, fruit.

It is also a help to provide some small, deep sancers, and when a rice, sago, tapioca or prune pudding is prepared for the family dessert, bake a little one for the lunch-basket. Custards baked in this way are always welcomed by children, and are among the most wholesome of all sweets.—*Emma I. McLagan.*

LADIES' JACKET.

Take six ounces of Saxony wool, or Spanish yarn, and a medium-sized bone hook; begin at the waist and make chain of 110 stitches.

First row—Miss the first stitch, * one double crochet in each of next four stitches; miss one stitch, repeat from * to end of row; there should be ninety-five double crochets in this row; break off the wool at the end of every row, and always begin from the same end—the right-hand side of the work.

Second row—In this row, and in the following rows throughout the pattern, the stitch differs from the usual double crochet; thus, insert the hook under the side of the vertical stitch and up through the center of the horizontal loop, work off in the usual way; do not take up but the one single loop of the vertical stitch and one of the horizontal; work fifteen double crochets, or two and a half inches; increase in next stitch by making two double crochets in one stitch; one double crochet in next stitch; increase in the next stitch as before; then work five inches without increasing; increase in next stitch; work one double crochet; increase in next stitch; one double crochet in each of next stitches until you reach the center of foundation; then increase in next stitch; one double crochet in each of next two double crochets, continue to increase to correspond with second increasing; increase in the same manner, then to the last, corresponding with the first made, and increase as done there. These increasings, each having a center stitch, are for the bust-darts, under the arm seams, and to slope the back.

Work for five and a half inches, increasing every third row in the darts in front, every fifth and seventh rows under the arms, and every fourth row in the back. This completes the increasing for the bust and back; work two inches more, increasing under the arms only; begin the next row two inches to the right of the increasings under the arm on right-hand side; work across to corresponding place on the left side.

Break off the wool, and begin the next row three stitches to the left, and work across within three stitches of previous row. Crochet five more rows in this manner, missing three or four stitches in each row to round the armhole; then continue up the back for four inches, working straight across; this completes the back of the armhole, and the decreasing for the shoulders begins; thus, work across in the same manner, missing two stitches in the beginning and end of each row until the back of the neck is reached.

Leave three inches in the center for slope of neck; work the short rows, leaving two or three stitches at the end of each row until all the stitches are narrowed off; make the left side in the same manner.

This completes the back; then make a straight row on each shoulder to give an even finish; begin the front on right side, and make eight inches, then work five rows, leaving three stitches at the end of each row; this will make an inch and a half; then work one inch without decreasing.

On the next row begin to slope for the front of the neck; omit two stitches at the beginning of each row for about an inch, then omit one stitch for half an inch, and in same rows increase at the shoulder in first row, again in fourth row and every seventh row thereafter. Work three inches without decreasing at each row; after which decrease off the shoulder by omitting three stitches at end of row for a little more than an inch; then make a straight row down the shoulder and work the other side to correspond.

For the lower part, or skirt, proceed in the same manner, increasing at darts in front in the same rows or for the upper portion of the jacket after the first two in-

creasing. Make the other a row farther apart; increase in under-arm seams and directly under the arm in every fourth row; the center stitch in these increasings to be preserved as above.

The back is to be left open; the edges straight; work both sides until a length of two inches under the arm has been completed; then round off the front by leaving six stitches from under the arm increasing. Make an inch and a half longer, omitting six stitches each time, preserving straight line down the front; make the other front in the same manner, then work the back a little longer in the same way.

When both sides for the back have been completed, round up the jacket on the shoulders in overcast stitch, with same wool, to look neat; then work one row on right-side entirely around the jacket, making loops for the buttons by working a chain of four stitches; miss two stitches, one double crochet in each of two or three stitches, for spaces between the buttons on right-side front; work around again with double crochets under the chain loops.

Take up stitches at the neck an inch from each end, and make a turn-over collar; work six rows, increasing every other row each side of the center stitch. Work all around this in three rows of shells, last row to form a scallop.

Finish the back of the skirt with a center-piece. Make a chain of twelve stitches and work a piece as long as the back of the skirt, increasing at each side every third row and rounding off at the bottom; lay this in a box-plait and sew it under the pieces at the waist line, and sew the sides of back coat fashion.

Work one round of double crochet around the armhole, and puff the top by increasing in each stitch on the shoulder; then take up the stitches and work in double crochet for the sleeves, omitting three stitches in each row until all the stitches are taken up; after which work around until the sleeve is the desired length, decreasing it under arm seam on both sides every fourth or fifth round.

Finish at the wrist with four rounds of shells, making the last round in scallops, to correspond with the collar end, and turn up to form a cuff and sew jet buttons down the front of the vest.—*New York Tribune.*

TO GET RID OF RATS.

Everybody has a method of getting rid of rats, and all are good at times. To the farmer and poultry-keeper these rodents are a terrible nuisance and means of loss. They will capture a half-grown chicken before your eyes and escape with him before you can do anything. It is very hard to trap them, because they won't go near the traps after one or two have been caught. Many do not know that spreading a square yard of thin cloth over the trap will deceive them. Place the bait on the pan of the trap, but on top of the cloth. If rats cannot be driven out of the building, poison in some form will kill many. Rough on rats is sure death, but is dangerous and must be kept away from poultry and all other stock.

Precipitated carbonate of baryta, which is a poisonous, heavy white powder, devoid of taste and smell, has been tried, and proved very effective. Mix with four times its weight of barley-meal, make a stiff paste with water, and introduce small pellets of it into the rat holes. The smallest quantity proves fatal, and it seems to immediately paralyze the hind quarters, so the rat will not get away and die where he could be eaten by domestic animals and prove fatal to them. It has been proved that neither pigeons nor fowls will touch the paste. Rats may also be killed by feeding them regularly in one place and then in a few days substitute dry plaster of Paris and a little meal for the regular food. Have a pail of water where they can drink, and the plaster of Paris will harden inside and kill them.

Whether or not a method is cruel is hardly to be considered in this connection, and we give this for what it is worth: Catch several rats without injuring them and put them in a tight cage. Do not feed them anything and they will eat each other, until all but one are eaten, and he may then be let loose. He has now such a love for a cannibal diet that he will soon eat every rat on the place. Rats may also be scared away by catching one or two, covering them with tar and feathers, and letting them go, or by putting a leather collar and small bell on the neck, or painting them with phosphorous. They will run after the others and all leave the building for good. Cover the floor near their holes with caustic potassa; they will get sore feet, and licking their feet will get sore months. A spry cat or dog will generally see that these rodents keep out of the way.—*Farm and Home.*

AN OAKVILLE MIRACLE.

THE REMARKABLE CASE OF MR. JOHN W. CONDOR.

A HELPLESS CRIPPLE FOR YEARS—TREATED BY THE STAFF OF THE TORONTO GENERAL HOSPITAL AND DISCHARGED AS INCURABLE—THE STORY OF HIS MIRACULOUS RECOVERY AS INVESTIGATED BY AN EMPIRE REPORTER.

(Toronto Empire.)

For more than a year past the readers of the *Empire* have been given the particulars of some of the most remarkable cures of the 19th century, all, or nearly all of them, in cases hitherto held by the most advanced medical scientists to be incurable. The particulars of these cases were vouched for by such leading newspapers as *The Hamilton Spectator* and *Times*, *The Halifax Herald*, *Toronto Globe*, *Le Monde*, *Montreal*; *Detroit News*, *Albany*, *N. Y.*; *Journal*, *Albany Express* and others, whose reputation placed beyond question the statements made.

Recently rumors have been afloat of a remarkable case in the pretty little town of Oakville, of a young man recovering after years of helplessness and agony. The *Empire* determined to subject the case to the most rigid investigation, and accordingly detailed one of our best reporters to make a thorough and impartial investigation into the case. Acting upon these instructions our reporter went to Oakville, and called upon Mr. John W. Condor (who it was said so miraculously recovered) and had not long been in conversation with him when he was convinced that the statements made were not only true, but that "the half had not been told." The reporter found Mr. Condor at work in one of the heaviest departments of the Oakville Basket Factory, and was surprised, in the face of what he knew of this case, to be confronted by a strapping young fellow of good physique, ruddy countenance and buoyant bearing. This now rugged young man was he who had spent a great part of his days upon a sick-bed, suffering almost untold agony. When the *Empire* representative announced the purpose of his visit, Mr. Condor cheerfully volunteered a statement of his case for the benefit of other sufferers. "I am," said Mr. Condor, "an Englishman by birth, and came to this country with my parents when nine years of age, and at that time was as rugged and healthy as any boy of my age. I am now 29 years of age, and it was when about 14 years old that the first twinges of inflammatory rheumatism came upon me, and during the fifteen years that intervened between that time and my recovery a few months ago, tongue can hardly tell how much I suffered. My trouble was brought on, I think, through too frequent bathing in the cold lake water. The joints of my body began to swell, the cords of my legs to tighten, and the muscles of my limbs to contract. I became a helpless cripple, confined to bed, and for three months did not leave my room. The doctor who was called in administered preparations of iodide of potassium and other remedies without any material beneficial effect. After some months of suffering I became strong enough to leave the bed but my limbs were stiffened and I was unfitted for any active vocation. I was then hampered more or less for the following nine years, when I was again forced to take to my bed. This attack was in 1886, and was a great deal more severe than the first. My feet, ankles, knees, legs, arms, shoulders, and in fact all parts of my frame were affected. My joints and muscles became badly swollen, and the disease even reached my head. My face swelled to a great size. I was unable to open my mouth, my jaws being fixed together. I, of course, could eat nothing. My teeth were pried apart and liquid food poured down my throat. I lost my voice, and could speak only in husky whispers. Really, I am unable to describe the state I was in during those long weary months. With my swollen limbs drawn by the tightening cords up to my emaciated body, and my whole frame twisted and contorted into indescribable shapes, I was nothing more than a deformed skeleton. For three long weary months I was confined to bed, after which I was able to get up, but was a complete physical wreck, hobbling around on crutches a helpless cripple. My sufferings were continually intense, and frequently when I would be hobbling along the street I would be seized with a paroxysm of pain and would fall unconscious to the ground. During all this time I had the constant attendance of medical men, but their remedies were unavailing. All they could do was to try to build up my system by the use of tonics.

In the fall of 1889 and spring of 1890 I again suffered intensely severe attacks, and at last my medical attendant, as a last resort, ordered me to the Toronto General Hospital. I entered the Hospital on June 20th, 1890, and remained there until September 20th of the same year. But, notwithstanding all the care and attention bestowed upon me while in this institution, no improvement was noticeable in my condition. After using almost every available remedy the hospital doctors—of whom there was about a dozen—came to the conclusion that my case was incurable, and I was sent away, with the understanding that I might remain an outside patient. Accordingly from September, 1890, to the end of January, 1891, I went to the hospital once a week for examination and treatment. At this stage I became suddenly worse, and once more gained admission to the hospital, where I lay in a miserable suffering condition for two months or more. In the spring of 1891 I returned to Oakville, and made an attempt to do something toward my own support. I was given light work in the basket factory, but had to be conveyed to and from my place of labor in a buggy and carried from the rig to a table in the works on which I sat and performed my work. In August, 1891, I was again stricken down, and remained in an utterly helpless condition until January, 1892. At this time Mr. James, a local druggist, strongly urged me to try Dr. Williams' Pink Pills for Pale People. I was prejudiced against proprietary medicines as I had spent nearly all I possessed on numerous highly recommended so-called remedies. I had taken into my system large quantities of different family medicines. I had exhausted the list of liniments, but all in vain, and I was therefore reluctant to take Mr. James' advice. I, however, saw strong testimonials as to the value of Dr. Williams' Pink Pills as a blood builder and nerve tonic, and thinking that if I could only get my blood in better condition my general state of health might be improved, I resolved to give Pink Pills a trial. With the courage born of despair I bought a box, but there was no noticeable improvement, and I thought this was like the other remedies I had used. But urged on by friends I continued taking Pink Pills, and after using seven boxes I was rewarded by noticing a decided change for the better. My appetite returned, my spirits began to rise and I had a little freer use of my muscles and limbs, the old troublesome swelling subsiding. I continued the remedy until I had used twenty-five boxes when I left off. By this time I had taken on considerable flesh, and weighed as much as 160 pounds. This was a gain of 60 pounds in a few weeks. My joints assumed their normal size, my muscles became firmer, and in fact I was a new man. By April I was able to go to work in the basket factory, and now I can work ten hours a day with any man. I often stay on duty overtime without feeling any bad effects. I play baseball in the evenings and can run bases with any of the boys. Why I feel like dancing for very joy at the relief from abject misery I suffered so long. Many a time I prayed for death to release me from my sufferings, but now that is all gone and I enjoy health as only he can who suffered agony for years. I have given you a brief outline of my sufferings, but from what I have told you can guess the depth of my gratitude for the great remedy which has restored me to health and strength.

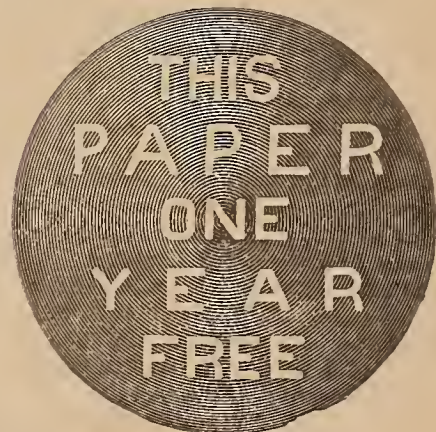
Wishing to substantiate the truth of Mr. Condor's remarkable story the *Empire* representative called upon Mr. F. W. James, the Oakville druggist referred to above. Mr. James fully corroborated the statements of Mr. Condor. When the latter had first taken Dr. Williams' Pink Pills he was a mere skeleton—a wreck of humanity. The people of the town had long given him up for as good as dead, and would hardly believe the man's recovery until they saw him themselves. The fame of this cure is now spread throughout the section and the result is an enormous sale of Pink Pills. "I sell a dozen-and-a-half boxes of Pink Pills every day," said Mr. James, "and this is remarkable in a town the size of Oakville. And better still they give perfect satisfaction." Mr. James recalled numerous instances of remarkable cures after other remedies had failed. Mr. John Robertson, who lives midway between Oakville and Milton, who had been troubled with asthma and bronchitis for about 15 years, has been cured by the use of Pink Pills, and this after physicians had told him there was no use doctoring further. Mr. Robertson says his appetite had failed completely, but after taking seven boxes of Pink Pills he was ready and wait-

ing for each meal. He regards his case as a remarkable one. In fact Dr. Williams' Pink Pills are recognized as one of the greatest modern medicines—a perfect blood builder and nerve restorer—curing such diseases as rheumatism, neuralgia, partial paralysis, locomotor ataxia, St. Vitus' dance, nervous headache, nervous prostration and the tired feeling resulting therefrom, diseases depending upon humors in the blood, such as scrofula, chronic erysipelas, etc. Pink Pills restore pale and sallow complexions to the glow of health, and are a specific for all the troubles peculiar to the female sex, while in the case of men they effect a radical cure in all cases arising from mental worry, overwork or excesses of whatever nature.

The *Empire* reporter also called upon Mr. J. C. Ford, proprietor of the Oakville Basket Factory, in which Mr. Condor is employed. Mr. Ford said he knew of the pitiable condition Condor had been in for years, and he had thought he would never recover. The cure was evidently a thorough one, for Condor worked steadily at heavy labor in the mills and apparently stood it as well as the rest of the employees. Mr. Ford said he thought a great deal of the young man and was pleased at his wonderful deliverance from the grave and his restoration to vigorous health.

In order to still further verify the statements made by Mr. Condor in the above interview, the reporter on his return to Toronto examined the General Hospital records, and found therein the entries fully bearing out all Mr. Condor had said, thus leaving no doubt that his case is one of the most remarkable on record, and all the more remarkable because it had baffled the skill of the best physicians in Toronto.

These pills are manufactured by the Dr. Williams' Medicine Company, Schenectady, N. Y., and Brockville, Ont., and are sold in boxes (never in loose form by the dozen or hundred, and the public are cautioned against numerous imitations sold in this shape) at 50 cents a box, or six boxes for \$2.50, and may be had of all druggists or direct by mail from Dr. Williams' Medicine Company from either address. The price at which these pills are sold make a course of treatment comparatively inexpensive as compared with other remedies or medical treatment.



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Truth is rising strong and fair!
Creeds are crumbling, temples shaking,
Light is flashing everywhere!
All the prison gates are creaking,
Men are spurning power and pelf.
Hark! the Nazarene is speaking—
"Love thy neighbor as thyself."

Wiser words were never spoken.
Nobler thought was never born;
By it, all their idols broken,
Men shall hail the coming morn.
Face to face with one another,
Sharing joy and easing pain.
Man to man shall be a brother,
Christ shall come on earth to reign.

EVERLASTING LIFE.

ETERNAL life is a life without any death in it; and eternal death is a death without any life in it. One is the opposite of the other. One is the reward of the righteous, the other that of the wicked.

Life, as it stands alone, unqualified by the adjectives eternal, everlasting, is highly cherished, though it is freighted with sorrow, laden with affliction, burdened with care, yet we do everything to prolong it. When we speak of matters which relate to taste or fancy we find that which is desired by one is discarded by another; and this is so in important as well as trivial matters. For instance, one man will try to gain Bible knowledge, forsake sin and try to live a Christian; another man equally intelligent pays no attention to the Bible and religion, and by a certain course of education arrives at that point in which he discards the whole.

But upon the theme of life we are united; all consider it pre-eminently important. Short as it is we all love it; saint and sinner do all they can to prolong it. If any are sick money is freely expended, sacrifices are made to put off the grim monster, and like Hezekiah of old, all are desirous of adding numbers to their years. The miser must have life to hoard up his wealth, the avaricious to get gain, the saint to praise God, for "the dead praise not the Lord, neither any that go down into silence."

Life is a "span," a "vapor," a "tale that is told." The young go forth in the morning of life; they step upon the threshold, and all is fair. Fairy scenes invite them on to rich banquets of pleasure, but as they advance the scene narrows and finally death confronts them.

This is true of temporal existence. Let us now pass to eternal existence. Eternal life is a subject of promise. (I John ii, 25.) It is one branch of the Christian's hope. (Titus i, 2.) This life is hid with Christ in God. (Col. iii, 3.) The righteous will receive it when Christ, who is our life, shall appear. (Col. iii, 4.) The wicked have not this promise; they will never receive this life. John says, "Whosoever hateth his brother is a murderer; and ye know that no murderer hath eternal life abiding in him." (I John viii, 15.) What is true of one class of the wicked is true of all.

Eternal life will far outweigh the present in importance. It will be endless, boundless, shoreless; free from death, sorrow and pain. Its possessors will enjoy eternal happiness, and will unite in celebrating the praises of God for evermore. Soon the glorious morn will dawn when life eternal will be given to the worthy. Soon that day will come in all its splendor and loveliness. Soon we will unite our voices in praises with the angels who will accompany the Savior to this earth, and the sweet music will roll over the bright landscape and echo back from the golden-crowned hill-tops in the land of promise. Let us wait, watch and pray for that glorious day.—*Sabbath Advocate.*

STORY OF A HYMN.

A party of tourists formed a part of a large company gathered on the deck of an excursion steamer that was moving slowly down the Potomac one beautiful evening in the summer of 1881. A gentleman who has since gained a national reputation as an evangelist of song had been delighting the party with the happy rendering of many familiar hymns, the last being the sweet petition so dear to every Christian, beginning, "Jesus, lover of my soul." The singer gave the first two verses with much feeling, and a peculiar emphasis upon the concluding lines that thrilled every heart. A hush had fallen upon the listeners that was not broken for some seconds after the musical notes had died away. Then a gen-

tleman made his way from the outskirts of the crowd to the side of the singer, and accosted him with, "Beg your pardon, stranger, but were you actively engaged in the late war?" "Yes, sir," the man of song answered courteously; "I fought under General Grant." "Well," the first speaker continued with something like a sigh, "I did my fighting on the other side, and I think, indeed am quite sure, I was very near you one bright night, eighteen years ago this very month. It was much such a night as this. If I am not very much mistaken, you were on guard duty. We of the South had sharp business on hand, and you were one of the enemy. I crept near your post of duty, my murderous weapon in my hand; the shadows hid me. As you paced back and forth, you were humming the tune of the hymn you have just sung. I raised my gun and aimed at your heart. I had been selected by my commander for the work because I was a sure shot. Then out upon the night rang the words:

"Cover my defenseless head
With the shadow of thy wing."

"Your prayer was answered. I couldn't fire after that. And there was no attack made upon your camp that night. You were the man whose life I was spared from taking."

The singer grasped the hand of the southerner, and said with much emotion: "I remember that night very well, and distinctly the feeling of depression and loneliness with which I went forth to my duty. I knew my post was one of great danger, and I was more dejected than I remember to have been at any other time during the service. I paced my lonely beat, thinking of home and friends, and all that life holds dear. Then the thought of God's care for all that he has created came to me with peculiar force. If he so cared for the sparrows, how much more for man, created in his own image; and I sang the prayer of my heart, and ceased to be alone. How the prayer was answered I never knew till this evening."—*S. W. Presbyterian.*

WILD OATS.

You see aged men about us at eighty, erect, agile, splendid, grand old men. How much wild oats did they sow between eighteen and thirty? None, absolutely none. God does not very often honor with old age those who have in early life sacrificed swine on the altar of the bodily temple. Trembling and staggering along these streets to-day are men, all bent and decayed, prematurely old for the reason that they are paying for liens they put upon their physical estate before they were thirty. By early dissipation they put upon their body a first mortgage and a second mortgage to the devil, and these mortgages are now being foreclosed, and all that remains of their earthly estate the undertaker will soon put out of sight. Let a flock of sins settle on your heart before you get to be twenty-five years of age, and they will in all probability keep possession of it. What! Will a man's body never completely recover from early dissipation in this world? Never! How about the world to come? Perhaps God will fix it up in the resurrection body so that it will not have to go limping through all eternity.—*Dr. Talmage.*

"HE DIED LEARNING."

Wandering about the cemetery at Mentone, a recent visitor found a headstone on which was written, "Here lies John Richard Green, historian of the English people. He died learning." What a rebuke these simple words are to those who are young and strong, but who do not use their abundance of life to learn the lessons of truth and beauty that God put into the world to learn! We talk of "finishing our education;" but as we may learn valuable lessons from every person and thing, education should not cease until death. Until death, do we say? No, not even then, for death itself will be a successful teacher, and will usher us into a world where we shall learn in an instant more than we could in this world in a thousand years.

THE TWO BEARS.

Doctor Newton tells of an old couple who were known to have been constantly quarreling for many years. All at once the strife ceased. The village gossip called to inquire what had produced the change. She was told that they kept two Scripture bears in the house and it was due to them. The one was "Bear ye one another's burdens;" the other, "Forbearing one another in love." Their names were *Bear* and *Porbear*. The explanation of it was, the old couple had become real, practical Christians.

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A tempting little breakfast set for a hungry man;
A row of fresh-washed dishes put back into their place,
A row of children sent to school, each with a shining face.

A whirl of sheets and pillows, of dust-pans and of brooms,
A set of smooth and snowy beds and neatly-ordered rooms;
A rather rapid toilet, within the glass a peep,
A tidy housewife setting back with market-basket deep.

A little rest and reading, a noontide lunch to get,
A rush of school-free children—a hungry, hugging set;
A trim and tasteful street dress, a little hat of brown,
A solemn "Shakespeare Circle," and a little jaunt down town.

A most delicious dinner, served up with love and fun;
A chat—a yawn—a pillow—and then her day is done.

—Good Housekeeping.

HOW THE QUEEN IS GUARDED.

EVEN the queen of England has her trials. Her majesty's frequent trips bring to mind the fact that English police could a curious tale unfold, if they chose to do so, about the mysterious persons whom they from time to time arrest for offenses connected with the royal family. Madmen without number (and, as a matter of fact, mad women, too) have, in the course of years, paid a visit to royal residences for the purpose of calling on the sovereign on the most silly errands, and formerly, when she was a young lady, an endless number of persons of the male sex used fondly to imagine they were in love with the youthful queen, and write to and attempt to call on her with a view to expressing their ardent feelings.

As a matter of fact, the queen and royal family are a greater source of care to the police than is generally imagined by the public, which doubtless imagines that with just a few "bobbies" here and there in uniform and plain clothes, whenever the sovereign and the heir-apparent take their walks abroad, the whole trick is done. It is a far more difficult and expensive job than this to guard the queen and prince. To guard a royal residence—that is, to keep an eye on suspicious characters who may prowl about it or seek admittance—requires, of course, vigilance; but that is easy work compared with protecting the sovereign when she appears in public.

Every time the queen leaves one of her residences, even for an afternoon drive, the event is notified some hours beforehand to the police by the equeerry on duty, who announces what itinerary her majesty will probably take. At certain points all along the route policemen have to be stationed, and detectives are placed at all the spots where the royal carriages are likely to stop. About Balmoral and Osborne the roads can be watched without difficulty, but not so around Windsor and Buckingham Palace.

It will be seen from this that the office of court detective is by no means a sinecure, and we might also add that it is, of all posts, that in which faithful, zealous, efficient service obtains the least honor and reward. Not that royal persons are ungrateful to those who guard them properly, but because the men who guard best are naturally those who make the least fuss. It is the duty of a court detective not only to shield the queen and the princes from danger, but to conceal from them, so far as possible, that they have been in danger. Thus, a man whose sagacity and diligence may over and over again have saved the queen or princes from annoyance, or even hurt, will often be less appreciated than the more demonstrative servant, who perhaps once in his life has had the good luck to arrest the arm of the assassin after, not before, the pistol was fired.

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 220 Powers' Block, Rochester, N. Y.

LAUGH.

Learn to laugh. A good laugh is better than medicine. Learn how to tell a story. A well-told story is as welcome as a sun-beam in a sick-room. Learn to keep your own troubles to yourself. The world is too busy to care for your ills and sorrows. Learn to stop croaking. If you cannot see any good in the world, keep the bad to yourself. Learn to hide your pains and aches under a pleasant smile. No one cares to hear whether you have the earache, headache or rheumatism. Don't cry. Tears do well enough in novels and on the stage, but they are out of place in real life. Learn to meet your friends with a smile. The good-humored man or woman is always welcome, but the dyspeptic or hypochondriac is not wanted anywhere, and is a nuisance as well.

St. Vitus Dance. One bottle Dr. M. M. Fennor's Specific always cures. Circular with cures. Fredonia, N. Y.

Recent Publications.

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R. M. KELLOGG'S great crops of small fruits and how he grows them. Improved methods of propagating plants and increasing their vigor. Price, 25 cents. Rushmore Fruit Farm, Ionia, Mich.

LAND DRAINING. Illustrated. A hand-book for farmers, on the principles and practice of farm draining. By Manly Miles, M. D., F. R. M. S., author of "Stock Breeding," "Silos, Ensilage and Silage," etc., etc. Published by Orange Judd Company, New York, 1892. Upwards of 200 pages, 12 mo., cloth, \$1.00.

A NATURAL METHOD OF PHYSICAL TRAINING. Making muscle and reducing flesh without dieting or apparatus. By Edwin Checkley. Revised and enlarged edition. Cloth, \$1.50. William C. Bryant & Co., Brooklyn, N. Y.

MY HORSE; MY LOVE. By Dinah Sharpe. Illustrated. Published by Orange Judd Company, New York, 1892. 155 pages, illustrated, 12 mo.; cloth, 75 cents; paper, 50 cents.

COMPLETE GUIDE FOR CAPONIZING. Free. By George P. Pilling, manufacturer of caponizing instruments, Philadelphia, Pa.

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SELL MUSIC Any man, woman, boy or girl can make good pay at home or traveling, selling our popular music. Send four cents postage for five complete full sized sample pieces of the very latest popular, vocal and instrumental music. WOODWARD & CO., 842 BROADWAY, NEW YORK

10% ABOVE FACTORY COST \$8.87 buys a \$65.00 Singer Style Machine. \$18.98 buys highest grade modern style machine in the world. 25 different styles at intermediate prices. Warranted 10 years. We are the only manufacturers selling machines direct. Send for catalogue P80. Terms for securing a sewing machine FREE. CHICAGO SEWING MACHINE CO., Chicago, Ill.

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"Fortune Knocks at least Once at every one's door." This Is Your Call. We can put you in the way to make \$250.00 per month without any risk, all that is required is a little Pluck and Push and you can make it. We want a live party to represent us in your locality and to sell our household goods by sample; no peddling, our goods are new and in great demand and you have the chance to establish a business that will pay you handsomely. We will pay a salary or commission as you prefer. If you are interested write for particulars to-day. Address "Manufacturers," Box 5308, Boston, Mass.

DETECTIVES Wanted in every county to act in the Secret Service under instructions from Capt. Grannan, ex-Chief Detective of Cincinnati. Experience not necessary. Established 11 years. Particulars free. Address Grannan Detective Bureau Co., 44 Arcade, Cincinnati, O. The methods and operations of this Bureau investigated and found lawful by United States Government.

If afflicted with sore eyes use Dr. Thompson's Eye-Water

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\$10,000 IN PREMIUMS Given away to those who purchase our Great Family Remedy which is GUARANTEED to permanently cure Dyspepsia, Indigestion, Biliousness, Sour Stomach, Constipation, Sick Headache, Rheumatism, Female Weakness, Nervous Debility and even Consumption in its early stages. If you are sincere and really want a speedy, cheap and permanent cure of the above-named complaints, we will gladly send you a trial package of our Wonderful Medicine FREE, and postpaid, thus giving you a chance to test its merits, free of all cost. Write to-day. We give a Guarantee to cure any of the above-named complaints. Address, EGYPTIAN DRUG CO., 29 Park Row, N. Y.

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Size, 11 1/4 by 14 1/4 inches. A startling panorama of Famous Buildings, Historic Ruins, celebrated Paintings and Statuary, and the grandest Mountain, Lake and River Scenery on the globe. Descriptions of each photograph written expressly for this book by Edward Everett Hale, D.D., Russell Conwell, D.D., Hamilton W. Mabie, LL.B., Lit.D., Washington Gladden, D.D., Hon. Wm. C. P. Brockinridge, S. F. Scovel, D.D., J. H. W. Stuckenberg, D.D., Hon. Henry Watterson and other talented writers. With an introduction by GENERAL LEW WALLACE, Author of "BEN-HUR."

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Our Miscellany.

POSTPONING AND LOSING.

We mean to do it. Some day, some day,
We mean to slacken this feverish rush
That is fast wearing our souls away,
And grant to our goaded hearts a hush
That is hold enough to make them hear
The footsteps of angels drawing near.

We mean to do it. Oh, never doubt
When the burden of daytime toil is o'er,
We'll sit and muse while the stars come out,
As the patriarch sat by the open door
Of his tent, with a heavenward-gazing eye,
To watch for the angels passing by.

We see them afar at high moontide,
When fiercely the world's hot flashings beat;
Yet never have bidden them turn aside
And tarry awhile in converse sweet;
Nor prayed them to hallow the cheer we spread,
To drink of our wine and break our bread.

We promised our hearts that when the stress
Of life work reaches the longed-for close,
When the weight that we groan with hinders
less,
We'll loosen our thoughts for such repose
As banishes care's disturbing din,
And then—we'll call the angels in.

The day that we dreamed of comes at length,
When, tired of ever-mocking quest,
And broken in spirit and shorn in strength,
We drop, indeed, at the door of rest,
And wait and watch as the day wanes on;
But the angels we meant to call are gone.

A DRY corn-cob will hold just about enough
kerosene oil to kindle a fire if properly man-
aged. There can be no safer way to use ker-
osene than when it is saturating a corn-cob.
Whoever builds the fire in the morning is in-
terested in this item.

THE three gilded balls used by pawnbrokers
are the three gilded pills which the Florentine
banking house of the Medici assumed as their
arms when they became wealthy. The
founder of the family had been a *medicus*; his
children went into banking and got rich; they
assumed the canting coat-of-arms of the pills,
and hung them out to show where their bank
was—their business being largely in the nature
of pawbroking. Their rivals caught onto
the idea and hung up three golden balls; and
so their successors, having given up hawk-
ing, retain the balls as the emblem of the paw-
broking side of the business.

Doctors? Pshaw! Take BEECHAM'S PILLS.

THE URBAN INCIDENT.

"Our race is leaving the farm;" and every
day there is a new short cut in the process of
farming. Is there not some connection be-
tween these things? The binder has lately
routed the self-raking reaper; all the new
mowers have a six-foot cut; the wheel-rakes
have both thills and pole, and are operated by
any girl or small boy who can drive; the
grindstone is automatic, and isn't much used
anyway—one grinding of the section is gener-
ally enough. The traction steam thrasher
climbs the highest hills, and its trained oper-
ators will finish a small job and be on the
road again nearly as soon as the old horse-
power could be got ready. In the near future
comes road reform, when you can draw all
your stuff at one load and be done with it.
Corn and potato fields are sowed to oats
without plowing; in short, I might fill out a
column with the list. And now is the worst
old pessimist of all ready to go back to hand
labor and the old methods to stop the exodus?
Not much! He wants more short cuts instead.
There is no use worrying over "tendencies."
In my time everybody went West. (A great
many came back again, but all had to go.)
This great movement is now over; the West is
nothing to us any more. So of this cityward
exodus; irresistible while it lasts, when it is
done it will be ended.—*New York Tribune.*

FRATERNALISM.

Fraternalism is the living principle of all
social interchange. It is the living spark that
kindles the social element and lifts men up
from despondency, gloom and fear, to a new
life of light and joy. It draws men together
in the folds of a common interest and com-
mon destiny. They touch hands, stand
shoulder to shoulder and heart to heart and
meet as one. The feeling of brotherhood is
aroused, partition walls fall, old prejudices
and old hatreds subside, and all unite in
mutual fellow feeling and good will.

Fraternal co-operation is a grand desider-
atum for which all should work and strive. It
is no myth. It is a living, active principle
that ought to be acknowledged everywhere.—
The Rainbow.

A CHEAP TRIP TO SOUTHERN GEORGIA.

During February many of our readers can
spare the time for a visit or an excursion bet-
ter than at any other time of the year, and
February 13th the cheapest excursion ever run
south will leave Springfield, Dayton and Cin-
cinnati, Ohio. Round trip tickets are only
\$10.55, good for 30 days, returning on regular
trains. This is the time of year to enjoy a trip
south, and you may not have another oppor-
tunity to go at this low rate.

For further information see the advertise-
ment on this page, or write to the Tropical
Home & Fruit Co., Pine City, Ga., or Spring-
field, Ohio.

A RECIPE FOR PROSPERITY, GIVEN BY A PROSPEROUS MAN—ECONOMY AND LABOR THE ESSENTIALS.

"It would be well for the young men of
to-day to take my recipe for becoming pros-
perous," said Mr. John Shepard to a *Herald*
man the other day, as he sat before his little
desk in an upper story of his great dry goods
house on Winter street. "I began life at the
very bottom rung of the ladder, but with a de-
termination that I would succeed if such a
thing were possible with the talent that I
possessed. Early in life I came to the conclu-
sion that economy was the first great essential
in establishing a fortune, and that labor was
the second. I banished from my mind all
other considerations when I began to work
upon the road that I felt sure would lead to
the goal of which I was in search. I remem-
ber very distinctly going down Marshall street
one day and having my attention attracted by
a most tempting display in a confectioner's
window. I had what is known as a very
sweet tooth, and I brought up standing before
the sweet collection, as if suddenly arrested
by some irresistible force. My hand immedi-
ately found its way to the pocket that carried
my meager boardings, and before I really
knew what I was doing, I had invested two
cents in butterscotch. When I got back into
the street I began to have a full realization of
what I had done, and it is safe to say that no
candy ever entered a boy's mouth that was so
little relished as was my butterscotch. I re-
gretted that investment for years, and when-
ever the temptation again came upon me
while passing the store, I put it away
instantly. Keeping close to this line of strict
economy, I found myself at last in a position
to go into business. Then, however, I com-
menced to feel that capital alone was power-
less in the attainment of success, unless it was
seconded by untiring labor. Here also I met
all the necessary requirements, frequently de-
voting twenty hours of the twenty-four to my
business. Gradually I found that I was
amassing a fortune, and finally I established
the house which now bears my name. After
I had accomplished what I started out to do
there came over me an entire change. I had
no aspirations to become abnormally wealthy.
All that I wanted was a safe guarantee
against possible disaster in the future. I de-
voted a portion of my time to the enjoyment
of life, believing that I had earned my right to
do so. No, sir; there is no use in filling a boy's
head with all the new-fangled ideas of getting
rich, as they are not practical. Economy and
labor are the only elements that enter into
the great plan of successful business life."—
Boston Herald.

TRULY A HELPMATE.

"Did I win anything on the election?" said
F. W. Warren, and there was haughty scorn
in his voice. "I always win on the election.
This time I won a sixty-dollar overcoat, a new
suit of clothes, a hundred imported cigars, a
meerschaum pipe and a basket of wine. In
it? Very extensively, my friend. I'm a
regular dyed-in-the-wool winner-pick-er. I
spot 'em every time. I never bet money, but
in the past twelve years I've won over \$5,000
worth of comforts of life from one person.
Who? My wife. She's got election betting
down to a science. When an election comes
on she makes out a list of the things she
wants, and a woman's wants are not few, I
beg you to remember. She bets with some
outsider on the Democratic nominee, then
duplicates these bets with me on the Repub-
lican nominee. Get onto her scheme? If she
loses on the outside she wins at home and
quits even. If she wins on the outside and
loses at home she gets her togs, pays her losses,
and has the bill sent to me. She has a great
head for business, has that woman, but if I
don't succeed in heading her off pretty soon
the sheriff will close me out and I'll have to
compromise for about fifteen cents on the
dollar."—*St. Louis Globe-Democrat.*

THE DIFFERENCE BETWEEN AN OX-FARM AND A HORSE-FARM.

"I am crank enough to think I can tell an
ox-farm from a horse-farm by just riding
past it," said the gentleman. "I don't know
how it is, but when one of the old style ox-
farms changes to horse flesh, it begins, as a
rule, to run behind and show less careful cul-
tivation. The owner may put on more style,
but somehow there is less substance in him.
He takes with his horse-teams a big burden of
expense for help and fittings, and a great
danger of loss from lameness, sickness, or
serious accident to his animals, and has got to
have a very much larger income to cover the
difference between them. That difference is
scarcely ever received, and the man who
changes over has more fun, perhaps, but he
makes less money. Another thing, I always
predict when I see a farmer with loops on his
reins that his day of 'petering out' is never
far off. It's a sure sign that he has fast horse
on the brain; and fast horse and farming, in
the ordinary sense of the word, never prosper
in combination." Strongly stated, perhaps,
but possibly there is a grain of truth in it
worth thinking of.—*Leviston Journal.*

HOME STUDY. A thorough and practical
Business College Course
given by Mail, at Student's Home, by
an old reliable school. No experiment.
7 Years' Success. Low rates and perfect satisfac-
tion. All ages and both sexes taught. It will pay to
investigate. Write for Catalogue and free trial lesson.
Bryant & Stratton, 449 Main St., Buffalo, N. Y.

**THIS SOLID GOLD
GENUINE DIAMOND RING**
FREE to any girl who will do a few
hours work showing our new goods
to their friends. Send No Money.
L. M. ASSOCIATION, 269 Dearborn St., Chicago, Ill.

GRAND EXCURSION SOUTH.

Special train to Pine City, Ga., via Little Miami and Queen & Crescent Routes.

Fare for Round Trip, Only \$10.55

From Springfield, Dayton, Xenia and Cincinnati, Ohio.

TICKETS GOOD FOR 30 DAYS,

To return by regular trains, making the cheapest Southern rate ever offered.

Special rates can be obtained from cities in any of the Northern States to Springfield,
Dayton and Cincinnati, where connection can be made with the special train.

The great sale of lots and fruit lands by the Tropical Home & Fruit Co. will take place
at Pine City, Ga., on the 15th and 16th of February, 1893. Special train will leave Spring-
field, Ohio, February 13th at 6:30 P. M., arriving in Cincinnati about 9:00, Chattanooga,
next morning.

Pine City is about 650 miles south of Cincinnati, in Wilcox County, Southern Georgia,
in the heart of the great fruit belt. It is the natural home for the peach, pear, apricot,
fig and grape, and where melons, sweet potatoes, berries and early vegetables flourish
and yield abundantly and are ready for market from two to three months earlier than
those raised in the North.

A colony will be established in and around Pine City and the Company will offer for
sale

Over 3,000 Town Lots

And from 3,000 to 5,000 Acres of Choice Fruit and Vegetable Land.

At reasonable prices, in parcels to suit purchasers.

We invite you to join this colony, where you can secure, at small cost, beautiful homes
in a climate not excelled by any in the United States.

For further particulars send for circulars to

TROPICAL HOME & FRUIT CO., Pine City, Ga., or Springfield, Ohio.

W. R. NEVIN & CO., Auctioneers, Dayton, Ohio.



Saucy Pansies though we be,
We would have you know
That we know a thing or two—
Burpee's seeds will grow.

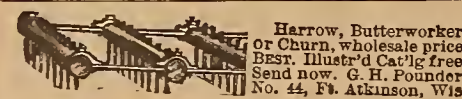
Burpee's Farm Annual for 1893

is the largest, best and most complete Seed
Catalogue published. A handsome book of
172 pages. It tells all about the Best Seeds,
Bulbs and Plants, including Rare Novelties of
Real Merit, which cannot be had elsewhere.
Honest descriptions, hundreds of illustra-
tions, with beautiful colored plates painted
from nature. Mailed Free to intending
purchasers; to others on receipt of ten cts.
which is less than the actual cost per copy
by the quarter-million edition. Write to-day.

W. ATLEE BURPEE & CO.

Philadelphia, Pa.

Don't fail to mention this paper.



Improved Hydraulic Rams.

Awarded Medal and Diploma at the Cen-
tenial Exhibition, Philadelphia, Pa.
Send for Circular and Price-list. Address
Allen Gawthrop, Jr., Wilmington, Del.

MENDING TISSUE

Repairs clothing better than needle and thread; Silk,
Satin, Cotton and Woolen, Kid Gloves, Macintosh,
Umbrellas, etc., all colors. Sample yard, 10c. Three
yards, 25c. Twelve yards, 65c. Stamps taken. Agents
wanted. Address STAYNER & CO., Providence, R. I.



WE WANT YOU

to act as agent in your locality for the
fastest selling article of the times.
Everybody admires and commends, the
great majority buy. There is a place
for one in every home. You don't have
to hunt for customers. If you want

To Make Big Money

investigate this AT ONCE before some
other person secures your locality.
Time is money, always; it means lots of
money in this business. A big bonanza
for all agents; experience unnecessary,
any one can sell it for it tells its own
story. Agents are now making from

\$10 to \$15 a Day

because they make quick sales, many
sales and make them easily. Sales are
increasing and will be enormous dur-
ing 1893. The World's Fair helps our
agents, advertises their work, creates
customers. Agents choose their own
territory, are offered big commissions

And a World's Fair Trip Free.

Write at once for confidential terms to
you on "The Greatest Money-Maker
for 1893." To secure the most liberal
terms and promptest attention be sure
to address your letter to

MFG. DEPARTMENT,
Mast, Crowell & Kirkpatrick,
Springfield, Ohio.

WHAT THE PEOPLE SAY ABOUT OUR FARM AND FIRESIDE FREE GIFTS.

LIBERTY, Mo., December 13, 1892.

The Three Gems came all right and are very
handsome. All premiums are very fine. One
Hundred Photographs is superb—alone worth
fully the price of the paper. J. R. EATON.

MONTGOMERY, OHIO, December 29, 1892.

Pictures (Three Gems) received in good order.
They are beautiful. Many thanks.

L. A. MITCHELL.

FREMONT, OHIO, December 26, 1892.

The two books and the Portfolio of Photo-
graphs came to hand. I didn't expect so much.
(I wondered if you hadn't anything more you
could send—a house and lot, or a small farm,
for instance.) Please accept thanks for your
liberality. E. W. KINNEY.

MONTGOMERY CITY, Mo.

I send you seven new subscribers. They all
prefer the Portfolio of Photographs after see-
ing my copy, received with my renewal a
month since. MRS. A. W. CHAMBLISS.

OLPE, KAN.

I received the One Hundred Superb Photo-
graphs. They are splendid.

MRS. J. F. STRATTON.

ST. LOUIS, Mo.

I received your gift, One Hundred Superb
Photographs, and showed it to my neighbors.
They were so pleased with it they gave me 50
cents for their subscription and the Free Gift
portfolio. MRS. B. H. BROWNELL.

PLEASANTVILLE, OHIO.

I have seen your Portfolio of Superb Photo-
graphs, and pronounce them better than what
I paid \$4.00 for last year.

W. H. SCHESLER.

ORLANDO, FLA.

Just received the Columbian Souvenir Spoon
and am delighted with it. It is so much finer
than I expected. Thank you very much for it.
You are the only publishers who seem to ap-
preciate their old subscribers by offering any
inducements to renew, although the paper
itself is inducement enough.

WM. A. MARSH.

LONDONDERRY, N. H.

I received your book of One Hundred Pho-
tographs with your papers and was very much
pleased. It is the finest premium I ever saw
given with a paper. LOUIS F. BROWN.

CLEVELAND, OHIO.

I wish to thank you for the beautiful Por-
tfolio of Photographs which you kindly sent
me. My friends are all enjoying the pictures
very much.

COLUMBIA, PA.

The Photographs were received, and am
much pleased. One thing I can truthfully
say: I have never found anything misrep-
resented by you. MRS. B. F. ACKERMAN.

PENNSFIELD, PA.

I do think the Portfolio is a grand gift.
MRS. J. H. KLINE.

See our Free Gift offers on sup-
plement with this issue.

\$3.50
HUNTING CASE
GENTS OR
LADIES

FREE

SIZE A fine 14k gold plated watch to every reader
of this paper. Cut this out and send it to us
with your full name and address, and we will
send you one of these elegant, richly jeweled
gold finished watches by express for exami-
nation, and if you think it is equal in appear-
ance to any \$25.00 gold watch, pay our sam-
ple price, \$3.50 and it is yours. We send with
the watch our guarantee that you can return
it at any time within one year if not satisfac-
tory, and if you sell or cause the sale of six
we will give you ONE FREE. Write at once
as we shall send samples for 60 days only.

**THE NATIONAL MFG
& IMPORTING CO.**
334 Dearborn St., Chicago, Illinois.

Farm Gleanings.

BLACK PEPSIN SWINDLE.

Some two months since I received a paper which claimed to be a copy of the proceedings of a dairyman's convention held at Melbourne, South Australia, on August 3, 1892, signed by Hon. — and two noted chemists, who had previously been appointed a committee to investigate the subject, and they report that after a thirty-day's test, with twenty cows, they made a gain in butter of nearly 150 per cent by the use of black pepsin. They gave the full details, which would occupy too much space to repeat. They claim that the butter is more wholesome, looks better, tastes better, keeps better and sells better than butter made in the ordinary way. They claim to have made a gain of one hundred and fifty dollar's worth of butter from ten cows in one month by using four dollar's worth of black pepsin. Now the idea of converting all the caseine, sugar, etc., that milk contains into genuine good butter, as they claim, by the addition of a little black pepsin, is a new departure in chemical combinations that I could not understand, and I determined to investigate the matter. They told us that black pepsin is a new discovery, and cannot be obtained from common druggists, but they named a chemical company in New York that would send free samples on receipt of thirty-eight cents in stamps to pay the postage. I applied to them, inclosing stamps (the envelope being marked to return after ten days), and have never heard from it. I applied to our home druggist, and he had never heard of it. I then wrote to a leading druggist in St. Paul, and he wrote me that it was so little in use that he did not feel warranted in carrying it in stock. I then wrote to a prominent firm in Chicago. They did not handle it, but gave me the address of the manufacturers. I then wrote to them, and got an answer at once, stating that they had the sole control of the manufacture and sale of black pepsin in the United States. That it would only be sold through druggists, and as they took me to be a druggist they would inclose me their price-list and terms. It is all put up in two and one half boxes. Each box will make five hundred pounds of butter, and sells at two dollars and fifty cents per box, and positively will not be sold in any smaller quantities, etc. But to cut a long story short, I succeeded in getting a sample (as I was supposed to be a druggist), and have made two tests with it according to their directions. It had just about as much effect on the butter as it would if I had added a pinch of salt or a teaspoonful of new milk. A word to the wise is sufficient, and let fools look out for themselves.

MINNESOTA.

DAIRYING AT RHINECLIFFE.

I recently visited a friend who is employed on Vice-President Morton's farm at Rhinecliffe, N. Y. Going into the dairy-house, I watched the butter-making with a great deal of interest, and learned a little about the methods employed there, an account of which may be of interest. The milk from each cow is weighed and the amount recorded. It is then strained through the finest-meshed wire strainers, and two thick-nesses of muslin, into a milk-can. The filled cans are carried to the dairy-house, where the butter maker weighs them and empties the contents into the separator tank after starting the engine and treating the milk with Heill's aerator. The De-Laval separator is then set in motion and the milk turned on, and allowed to run in slowly. The cream sinks into one milk-can, while the skim-milk, still warm, is carried to be fed to the hogs and chickens. Churning is done but once a day, every morning. The night's milk is aerated and run through the separator, and the cream is placed in the cool-room, which is kept at the temperature of about forty degrees.

The temperature at which the cream is churned is perhaps an unusual one, but careful experiments with cream at various temperatures, using the Babcock tester to determine the amount of butter-fat left in the skimmed milk, abundantly shows that thirty-six to thirty-nine degrees is the best for churning sweet cream, and the butter comes in twenty to thirty minutes. The churn is one of the largest size, running by steam-power.

The morning's milk goes over a Star milk-cooler before being churned. Various methods have been employed to obtain the necessary flow of iced water. A coil of pipe, placed in a tank and packed with ice,

failed to cool sufficiently the water which ran through the coil. Now they have put up a simple tank in which the broken ice is placed, and water under pressure, regulated by a stop-cock, is admitted near the bottom, while the overflow of iced water runs into the cooler from near the top.

Great care is taken to stop the churn just after the separation has taken place, but while the butter is still in small particles. The buttermilk is now drawn off and the butter washed several times by pouring on water and gently rocking the churn, but it is never cut or stirred. When sufficiently churned, the mass is turned out into an immense wooden bowl, from which it is transferred to the table of a butter-worker for salting.

Sweet-cream butter requires more salt than that made from ripe cream. One ounce of Ashton (imported) salt to the pound was first used, but two thirds of an ounce of Genesee (domestic) salt is found sufficient, and this salt gives best satisfaction, being free from scale. The butter-worker is scalded and cooled before using. The roller of this butter-worker adjusts itself to the thickness of the butter under it, easily passing over lumps of ice. It can also be used to roll up and lap the butter over at both ends of the lump, which saves much hand-work in turning the butter over on the table. When the salt is thoroughly impregnated, and the water all worked out, the mass is carried to the cool-room, after which, by means of paddle and scales, it is weighed into half-pound blocks for printing, which is done after the butter is thoroughly cooled. Each print is then wrapped in parchment paper. The butter is then shipped in refrigerator boxes. The size usually sent out holds eighteen pounds. These boxes are made upon the place by the farm carpenter. They are of white-wood, shelled. The approximate dimensions are eighteen by twelve by eight inches deep. In one end is placed a galvanized ice-box. This has a tight-fitting cover, and is four and one half by eleven, and is seven inches deep. The prints of butter are packed by placing them edgewise, one layer deep, in each of the two trays which the box contains. The box is then iced, padlocked, and shipped by express. This butter sells for more than double the market price. It is shipped to both Washington and New York. The Union League club uses most of it. Unsalted butter is also put up for a few customers.—A. D. Warner, in the Ohio Farmer.

THE MOLE DISGUSTED.

Dr. J. P. Stelle says, in the Fort Worth Gazette, that he has always been able to drive moles away from his garden by a very simple method, now to be described. Open small holes in the tunnels here and there and pour in a little cheap molasses. The molasses gnaws the fur of the animal, engenders disgust, and causes it to transfer its operations to more cleanly localities. Coal-tar would probably be better than molasses, though more expensive and less convenient. One good application of the molasses has usually driven the moles away for the season.

A HOME IN THE SHENANDOAH VALLEY.

Convenient markets, good soil, pure water and excellent climate are advantages to be considered when looking up a home, business location, farm, etc. West Virginia, Maryland and the Shenandoah Valley, Virginia, affords these with many more advantages. No section of the United States offers superior opportunities, and persons seeking a new home should examine these States before deciding upon a location elsewhere. Improved farm lands adapted to stock raising, dairying, grain, grass, and fruit growing can be obtained at low prices and upon easy terms. Thriving towns invite the merchant, mechanic and business man. Abundance of coal, timber, ore, water power, etc. Free sites for manufacturers.

Persons desiring further information will be answered promptly and free of charge by M. V. Richards, Land and Immigration Agent, B. & O. R. R., Baltimore, Md.

In Georgia they catch the hog by the ears and lift him up; if the tail-end goes down, he is fit to kill.

I will cure you of Nervous Debility free of charge, write to-day, giving full particulars of your case, enclosing two cent stamp. Address Dr. A. H. Smith, Avon, N. Y. adv.

FOSTER BUCCIES HARNESS

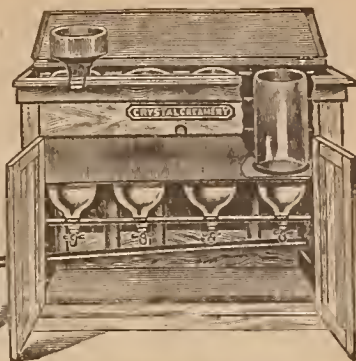
CUT RATE CASH PRICES.
BUY DIRECT FROM OUR FACTORY and Save
DEALERS PROFIT.
No Agents Employed.
Send for our large Free Illustrated Catalogue.
Foster Buggy & Cart Co., 23 Pike Bldg., Cincinnati, O.

\$65 Road Wagon for	\$32.00
\$90 Buggy for	\$45.25
\$125 Phaeton for	\$73.00
\$90 Family Wagon for	\$48.26
\$9 Single Harness for	\$5.25
\$30 Double Harness for	\$15.44

Kneeland's Crystal Creamery

Only Creamery with Glass Milk Cans and Steel Plate Water Tanks

CREAM WITH OR WITHOUT ICE.
Practicable, Durable, Simple, Perfect, Profitable. Non-rusting. Non-corrosive, no Leaking. Sediment removed by bottom skimming. No dipping or slopping of milk or cream. Glass cans give more and better cream and butter. A perfect Separator for small dairies. Send for catalogues to Agents wanted. Crystal Creamery Co., Cut prices to first purchaser. 30 Concord Street, Lansing, Mich.



What Farmer Wouldn't

like to have machines that would lessen his labor and cares, and reduce the cost of production? The "Planet Jr." Tools do this and do more—they produce better results and better profits. The new machines "PLANET JR." Hill Dropping and Fertilizer Drill; "PLANET JR." Combined Drill, Wheel Hoe, Cultivator, Rake and Plow—are marvels of mechanical ingenuity. The "Planet Jr." book for 1893 shows you their parts and uses in detail. It's a book worth having at any price. We send it free.

S. L. ALLEN & CO., 1107 Market St., PHILADELPHIA, PA.

Many Old Worn-Out FARMS

require so much fertilizing that farms and gardens The rich, loamy soil of Michigan Farms produces a fine crop without this expense. The near markets, general healthfulness of climate and freedom from cyclones, blizzards, together with good society, churches, etc., make Michigan Farms the best in the world. Write to me and I will tell you how to get the best farms on long time; low rate of interest.

WON'T PRODUCE A PROFIT. O. M. BARNES, Land Commissioner, Lansing, Mich.

LAND for sale near Ocala, Fla. Address with stamp, Dr. L. B. Rowland, Hagerstown, Md.

WRITE To the Kansas Trust and Banking Co., of Atchison, Kan., for their descriptive price lists of improved farms in Kansas.

FARMS, MILLS AND HOMES

in OLD VIRGINIA, for sale and exchange. Easy Terms. Free Catalogue, R. B. CHAFFIN & CO., Richmond, Va.

FARMS FOR SALE IN ALBEMARLE CO., VIRGINIA.

Winters mild and short. Health fine. Land good. Prices moderate. Taxes low. Close to the great markets. LEWIS D. AYLETT, Charlottesville, Va.

\$100

Invested in PIERRE now will bring you \$1,000 inside of a few years. Good residence lots, within a few minutes' walk of the State capitol building, can be had for \$100 each. Write us for maps, circulars, etc. STEARNS & ROWS, Pierre, S. Dakota. Mention this paper when you write.

OREGON THE PARADISE OF FARMERS

Mild and equable climate, no extremes of heat or cold, no cyclones, blizzards or severe storms of any kind. Certain and abundant crops of grains, grasses, fruits and vegetables. No failure of crops has ever been known.

Full information furnished free by the Oregon State Board of Immigration, Portland, Oregon.

If you want to buy a strictly first-class outfit at low figures, address The W. C. LEFFEL CO., Greenmount Ave. SPRINGFIELD, O.

HARNESS To the Consumer at Factory Prices.

Send for circulars giving illustrations and prices. Michigan Repository Co., Saginaw, Mich.

The Spring Curry Comb

Clock Spring Blade. Soft as a Brush. Fits Every Curve. The Only Perfect Comb.

Used by U. S. Army. Sample mailed postpaid 25c. Spring Curry Comb Co.

131 S. La Fayette St., South Bend, Ind. Don't fail to mention this paper.

HEADQUARTERS FOR LOW PRICES!

SALES OF EVERY VARIETY. A 1,000 Articles Less than Wholesale Prices. Carriages, Buggies, Wagons, Carts, Sleighs, Harness, Saws, Sewing Machines, Blacksmiths' Tools, Bone Mills, Feed Mills, Cider Mills, Corn Shellers, Feed Cutters, Lawn Mowers, Land Rollers, Road Plows, Dump Carts, Steel Scrapers, Sinks, Fanning Mills, Stoves, Kettles, Jack Screws, Hand Carts, Wire Fence, Letter Presses, Coffee and Spice Mills, Guns, Pistols, Bicycles, Tricycles, Cash Drawers, Clothes Wringers, Meat Choppers, Trucks, Lathes, Engines, Watches, Organs, Pianos, Etc. Send for free Catalogue and see how to save money. 151 S. Jefferson St., CHICAGO SCALE CO., Chicago, Ill.

EUREKA VEHICLES HARNESS SADDLES

ARE SOLD TO THE CONSUMER AT WHOLESALE PRICES. Write for Free Illustrated Catalogue and Net Cash Prices of our full line. Address EUREKA CARRIAGE & HARNESS CO., Cincinnati, O.

\$65 Top Buggy	\$42.50
\$85 Top Phaeton	\$60.00
\$100 Top Surrey	\$62.50
\$45 Road Wagon	\$30.00
\$65 Platform Spr. Wagon	\$43.00
\$8 Single Buggy Harness	\$5.00

FREE

If you will send us within the next 30 days a photograph or a tintype of yourself, or any member of your family, living or dead, we will make you one of our enlarged life-like CRAYON PORTRAITS absolutely free of charge. This offer is made to introduce our artistic portraits in your vicinity. Put your name and address back of photo., and send same to Cody & Co., 755 DeKalb Avenue, Brooklyn, N. Y. References: Rev. T. DeWitt Talmadge, all newspaper publishers, Banks, and Express Companies of New York and Brooklyn. P. S.—We will forfeit \$100 to any one sending us photo, and not receiving crayon picture free of charge.

DOUBLE BREECH-LOADER GUNS

INCUBATORS and BROODERS. Brooders only \$5.00. 120 testimonials. 40 premiums, medals, and diplomas. Best machine ever invented for hatching & raising chicks, turkeys & ducks. For catalogue address Geo. S. Singer, Cardington, O.

"The Best Poultry Paper,"

Sent on Trial Six Months for ONLY—15 CENTS. If you mention where you saw this advertisement, FARM-POULTRY is the name of our paper. It teaches how to make money with a few hens. Sample copy sent free. S. JOHNSON & CO., Boston, Mass. Mention this paper when you write.

B-KEEPERS

should have Root's "Gleanings in Bee Culture." Handsomely illustrated. Semi-monthly. (\$1.00 a year.) Sample copy and 52-page illustrated Catalogue of BEE-KEEPERS' SUPPLIES—Free for the asking. A B C of Bee Culture is the best Bee book published, 400 pages. Price, \$1.25. [Mention this paper.] A. I. ROOT, Box E, Medina, Ohio. Mention this paper when you write.

FREE by return mail, full descriptive circulars of MOODY'S NEW and IMPROVED TAILOR SYSTEMS OF DRESS CUTTING. Revised to date. These, only, are the genuine TAILOR SYSTEMS invented and copyrighted by PROF. D. W. MOODY. Beware of imitations. Any lady of ordinary intelligence can easily and quickly learn to cut and make any garment, in any style, to any measure, for ladies, men and children. Garments guaranteed to fit perfectly without trying on. Address MOODY & CO., CINCINNATI, O. Mention this paper when you write.

WHEREVER THE ROCKER WASHER is used the Washboard becomes a Relic of Barbarism. It is warranted to do the washing of an ordinary family in one hour as clean as can be washed by hand. Write for full description and prices. Rocker Washer Co., Fort Wayne, Ind. Agents wanted. Mention this paper when you write.

Circular Distributors Wanted.

Publishers, Patentees, Manufacturers, etc., are daily requesting us to supply the addresses of reliable circular distributors, bill posters, etc. Brunn's success is marvelous, and will open up in 200,000 AGENTS' HERALDS next issue, to be mailed to business men, new, profitable and permanent employment to one man, woman or youth in every town and hamlet in the U. S. and Canada. "The early bird catches the worm." We want a few such ads. as Brunn's (sample below) to start with in this month's MAMMOTH editions of AGENTS' HERALD.

BRUNN Nails up signs, distributes circulars, papers, samples, etc., throughout Blackhawk and surrounding counties at only \$3.00 per 1000. Address W. H. BRUNN, Waterloo, Ia.

Brunn paid \$2.40 to insert above 4 lines, June '90. He began during the summer. That ad. paid then, is paying yet. He has been kept constantly busy, employs three men to assist him, clearing on their labor from \$10 to \$15 a day distributing circulars at \$2.00 per 1000 for many firms, who saw his ad. in THE HERALD. It costs every firm at least \$10 in postage alone to mail 1000 circulars. A saving to each firm who employs you of \$7 per 1000. Ten firms may each send you 1000 at the same time, making 1000 packages of 10 each, for distributing which you would promptly receive \$30, \$15 in advance and \$15 when work is done. Parents make your boys a present. Start them in this growing business. Begin this neat business before some one in your county gets the start of you. "Come in on the ground floor." Instructions how to Conduct the Business Free, to each distributor only, who sends us \$2.40 cash or postage stamps for a 4 line "ad." AGENTS' HERALD, No. 2 S. 5th Street, Philada., Pa.

ASTHMA CURED BY COCA-CHEKAN. FREE

We also want AGENTS, to travel and introduce our medicines. LIBERAL SALARY PAID. OHIO SPECIFIC MEDICAL CO., Box 704, CINCINNATI, OHIO.

Smiles.

EVERY TIME.

The constant drop of water
Wears away the hardest stone;
The constant gnaw of Towser
Masticates the toughest bone;
The constant cooing lover
Carries off the blushing maid,
And the constant advertiser
Is the one who gets the trade.

—Wahoo Wasp.

A PLEASANT BUSINESS.

A LAWYER trying to serve his client by throwing suspicion on a witness in the case, in the course of cross-examination said:

"You have admitted that you were at the prisoner's house every night during this time?"

"Yes, sir," replied the witness.

"Were you and he interested in any business together?"

"Yes," answered the man unhesitatingly, "yes."

"Ah! Now, will you be kind enough to tell us how, and to what extent, and what the nature of this business was in which you and he were interested?"

"Well, I have no objection to telling," was the reply. "I was courting his daughter!"—*Good Words.*

IN A PASTORAL COUNTRY.

Isabel had spent the most of her five years on a cattle ranch, and while at her grandfather's home in the city, she was taken to Sunday-school for the first time.

The teacher told the story of Lot's wife, and Isabel listened very attentively. The teacher ended the story by saying, "For all I know, the pillar of salt may be there now."

"Say, was that a cattle country?" asked Isabel.

"Yes, I think so," replied the teacher.

"Well, let me tell you," with an air of superior knowledge, "those cattle would have licked her up long ago."—*Life.*

HE WANTED A FEE.

The guest, who had been sitting for some time in the restaurant, called up one of the waiters and said:

"Is it a custom to fee the waiters in this establishment?"

"Yes, sir," replied the waiter.

"Then," said the guest, "I think I ought to have a fee from somebody, for I've been waiting here nearly an hour."

"Oh," said the unabashed waiter, "it isn't a fee you want, but a feed."

ECONOMY.

Daisy—"When I get big like you, mamma, I'm going to marry a doctor or a minister."

Mamma—"Why, my dear?"

Daisy—"Cause, if I marry a doctor I can get well for nothing; if I marry a minister I can be good for nothing."—*Judge.*

SLIGHTLY CONFUSED.

Jorkins (who has fallen asleep against a lamp post and has buttoned his double-breasted ulster around it)—"Lemme go, I tell you! If you're a lady thish conduct ish wrong, and if you're a highwayman, I ain't got a cent, so lemme go."—*Judge.*

SOMETHING UNIQUE.

"Cora introduced a new feature at her last wedding," said Mrs. Livewayte, of Chicago, to Mrs. Drestbeef.

"What was it?"

"The ushers were selected from her ex-husbands."

A MAD CAT.

Little Dot—"Oh, mamma, I'm afraid the cat's got hydrophobia."

Mamma—"Mercy me! Why?"

Little Dot—"I threw some water on her, and she gave an awful yowl."—*Good News.*

HIS FIRST CHANCE.

Mrs. Nuwed—"I think that Mr. Quiverful is a perfect brute. He sat up all night writing with his dead baby in the room."

Mr. Nuwed—"My dear, he could not have done it if the baby had been alive."

IN BOSTON.

She—"If these stockings don't fit, may I bring them back and change them?"

Saleslady—"Certainly, ma'am. But we would rather have you change them before you bring them back."

BETTER THAN LAW.

Mr. Suburb—"My neighbor has a big dog that we are all afraid of. What do you advise?"

Lawyer—"Get a bigger one. Five dollars, please."

A LIBERAL OFFER.

Dr. J. M. Willis, a leading reliable physician of Crawfordsville, Ind., will send free by mail to all who send him their name and address, a box of Pansy Compound, which is two weeks' treatment with full printed instructions, and is a positive cure for constipation, biliousness, dyspepsia, rheumatism, neuralgia, nervous or sick headache, blood poison and chronic disorders. Send 6c. to help pay postage and wrapping.

NOT SO BAD AS IT SEEMED.

The young man was talking to a very pious acquaintance of his.

"Miss Follins told me to-day you were at her house last night," she said.

"Yes," he replied.

"I presume, of course, you had a very pleasant time; she's such a charming girl."

"Lovely. I never had a better time. You see, there was some one playing the piano in the back parlor, and Miss Fannie and I quietly stole out into that big dining-room they have, and in about a minute I slipped my arm about her waist."

"Sir!" And Miss Prim almost had a fit.

He was as cool as a cucumber.

"I said," he went on, "that I slipped my arm about her waist and she put her soft, white hand on my shoulder—"

"I beg your pardon," interrupted Miss Prim, "but I cannot permit this conversation to continue. If Miss Follins thinks no more of herself than to permit such liberties from a gentleman, surely he should think enough of himself not to tell of them."

The young man snickered.

"Of course, of course," he said; "but wait till you hear it all."

"No, sir; no, sir!" she protested. "I have heard too much already."

"Why, there isn't anything told yet," he persisted; "as I said—"

"I shall not hear it, sir." And in high dudgeon she arose to depart.

"My dear miss," he said very courteously, "we were only beginning to waltz, and everybody was looking at us."

"Oh!" she exclaimed with a sudden collapse, and the young man laughed.—*Detroit Free Press.*

HAD HIM THERE.

A rather seedy-looking individual, one of the large army who live on their wits, was working the smaller towns of the Fort Worth and Denver railway as a phrenologist, and was waiting at the depot for his train to come. He was walking up and down the platform with his plaster-cast head in a bag under his arm. A young farmer who had been making fun of him said sotto voce:

"I don't have to make my living by carrying a plaster head under my arm."

"No," replied the seedy phrenologist; "you carry your plaster head on your shoulders."

SHE KNEW.

A new instance, borrowed from *Tit-Bits*, of the danger incident to leading questions: The minister's wife was laboring with a delinquent member of the village industrial school.

"Eliza Jane," she said, "I am sorry to hear from your teacher that you are not diligent at your needlework. Don't you know who it is that finds work for idle hands to do?"

"Yes'm," answered Eliza Jane, anxious to propitiate; "yes'm; you do."

IRISH VERACITY.

The Irish are so proverbially truthful that there is veracity to be found even in their lying, as the following will amply prove:

In an Irish daily there recently appeared this advertisement: "Wanted—A gentleman to undertake the sale of a patent medicine; the advertiser guarantees it will be profitable to the undertaker."

NOT HIS IDEAL.

Patent-medicine doctor—"Take some of my preparation and you will be cured."

Patient—"And then will I look like those men whose pictures appear in the papers?"

Doctor—"Er—yes; I presume so."

Patient—"Then I don't want to be cured."

A COOL INVITATION.

One man was asked by another, with whom he was not on the best of terms, where he had taken up his abode.

"Oh," he replied, "I'm living by the canal at present. I should be delighted if you would drop in some evening."

MISS ETHEL WAS EXCUSED.

Miss Ethel, aged four, had retired for the night, when her mother asked if she had said her prayers. "No, mamma," was her reply. "I was tired an' I asked God to excuse me. He said, 'Certainly, Miss Ethel, don't mention it.'"—*New York Times.*

A DREAM OF WEALTH.

"I'd like to be rich," said Tommy.

"How rich?" asked his sister.

"Oh," replied the young man, after some thought, "rich enough to wear my Sunday clothes every day."

TOO MUCH OF THAT.

Mrs. Cumso—"You ought to have seen Willie Whiffets tear up the street."

Cumso—"I think he ought to be made to put it down again."

DON'T TOBACCO SPIT YOUR LIFE AWAY

Is the startling, truthful title of a little book just received, telling all about *Nobac*, the wonderful, harmless, economical, guaranteed cure for the tobacco habit in every form. Tobacco users who want to quit and can't, by mentioning FARM AND FIRESIDE can get the book mailed free. Address THE ESTERLING REMEDY CO., Box 763, Indiana Mineral Springs, Ind.

A DISCOVERY.

"There's that fellow across the street starting up again," said the young man disconsolately. "He's been playing for the last hour."

"Yes," replied his musical friend; "that's 'The Watch on the Rhine.'"

"Is it? Well, I never before noticed that the watch on the Rhine had a Waterbury movement."

A TRYING ADMONITION.

She (just after accepting him)—"Don't look so tenderly happy. Can't you manage to wear some other expression for a little while? Those men over there are watching us, and if you don't stop, I sha'n't have another proposal this year."—*Princeton Tiger.*

NOT UNKNELLED.

First quidnunc—"Did the town authorities take any appropriate action on the death of Scruggs, the millionaire?"

Second quidnunc—"Yes; they had the fire-bell rung while the funeral was going on."

SOMETHING HAD TO BREAK.

"Why did you break your engagement with Miss Hipton?"

"It had to be the engagement or me; and I'm too fond of good living to go into bankruptcy."—*Harper's Bazar.*

A DEFINITION.

"Soy, Phalim, phat's a ventriloquist?"

"He's a lad phat stands on one side av th' room an' talks to himself from th' other."—*Yale Record.*

LITTLE BITS.

The only man on earth who thinks twice before he speaks once, is the man who stutters.—*Atchison Globe.*

Ethel—"I hear that you have been ill, Mr. Chapley." Chapley—"I have been under the doctor's care for a week back." Ethel—"Nothing worse? We heard it was your head."—*Truth.*

Miss Wantman—"Why are wedding-rings always plain?" Jeweler—"Because by the time a young man has completed his courtship he hasn't money enough to pay for anything more elaborate."—*Jewelers' Weekly.*

Visitor—"What bright eyes you have, my little man. You get plenty of sleep, I presume." Little man—"Yes'm. Mamma makes me go to bed every night at eight o'clock." "So you will keep healthy?" "No'm. So she can mend my pants."—*Good News.*

The Rochester *Chronicle* says that Jay Gould "began life as a barefooted boy." Well, what of it? We thought all men began life in that way. We have heard of many a man who has died with his boots on, but never of one who was born with them on.—*Rochester Union.*

Husband—"What in thunder is the matter with the sauce for this pudding?"

Wife (who is a prohibitionist)—"The hook said to flavor it with brandy; but my principles wouldn't allow me to do that, so I used a bottle of sarsaparilla pop."—*Buffalo Express.*

Judy—"Do you believe in the transmigration of souls, Joe?"

Joe—"What's that, sir?"

Judy—"Why, for instance, that cow had a prior existence in another form—perhaps been a being like myself."

Joe—"Oh, no doubt the cow's been a calf."

Jones—"I'm going to bring my wife around to call on you to-night."

Smith—"That's right; but do me a favor, old man. Don't let her wear her new seal-skin cloak; I don't want my wife to see it just now."

Jones (grimly)—"Why, that's what we are coming for."—*Exchange.*

Jones—"What's the matter with your face, Charlie?"

Charlie—"I've just been shaved."

Jones—"Well, the man who hacked you in that way must be one of the biggest fools on earth."

Charlie (earnestly)—"He is, Jones; he is. I shaved myself."—*The Waterbury.*

"I hardly think I have any father; I hardly think I have any father," five-year-old Helen was heard repeating to herself. "Why, my child, what are you saying?" asked her mother. "Oh, I've got to learn it to please my Sunday-school teacher. She says it's a prayer." And so it was; but investigation proved it to begin, "I heartily thank thee, heavenly father."—*Buffalo News.*

Bulfinch—"Do you know, I think girls are such original people."

Miss Smilax—"What makes you say that?"

Bulfinch—"Well, I was at a little party the other night, and a girl was holding forth on the terrible impropriety of being kissed, and a little, innocent, blue-eyed girl said she thought so, too, and that not only would she never permit such a thing, but she never had been kissed in all her life, except by her father."

Miss Smilax—"Well, I admit that was possibly a trifle unusual, but I don't see anything so very remarkable about it."

Bulfinch—"Well, you see, I'd just been out in the dining-room with her to get a drink of water, and I'd kissed her eighteen times."—*Boston Courier.*

FREE VALENTINES.

We have some sweet pretty valentines which we are giving away to all who would like to take our beautiful Magazine. *COMFORT*, on trial for the next three months. They are the regular *cupid's darts* made up with lace and lithograph work, and we also include an assortment of comics. Send 6 cents to Morse & Co., Box 309, Augusta, Maine, for trial subscription and we mail valentine package free.

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Gleanings.

WHEN MY SHIP COMES IN.

Away in the sea, oh, I wonder where,
Somewhere, somewhere in the waters blue,
Where the winds are soft and the skies are
fair,
In a mystic country no man ever knew,
My ship rides safe in a dreamy calm;
Perhaps by an isle where the lotus grows,
Perhaps by an isle of the spreading palm,
Perhaps—who knows? Ah, yes, who knows?
But her cargo is safe where'er she be,
And her crew will tire of the lazy life,
And her prow will cut a course through the
sea
Some day, I know, like a gleaming knife,
But, oh, as I patiently sit and wait,
It seems so long to me, so long
She lingers outside the harbor gate,
And her sailors list to the mermaid's song.
But ships come in, and I'll yet see her
In time that is long or time that is short;
Although, forsooth, she seems to prefer
The sunny isles to the grimmy port.
—Carl Smith, in *Harper's Weekly*.

WHAT BECOMES OF THE "TOMBOY?"

AND what of that little nondescript known as the tomboy? What becomes of the romping, hoidenish girl who much prefers the society of the naughtiest boys to the nice, well-behaved daughters of respectable neighbors, and who cannot endure the quiet games with the aforementioned cherubs and their meek dolls, who have such a tiresome fashion of forever smiling up into one's face?

Does she still continue to enjoy masculine sports when she has arrived at years of discretion? Is she still inclined to torn frocks, disheveled locks, and an abhorrence of all those things girls hold most dear? As far as our observation goes, we would flatly say no; quite the reverse. The greatest tomboy we ever knew turned out to be the most demure creature at twenty that we could imagine.

She took to fancy work and hospital visiting with a vigor that seemed must be meant to atone for all those years when she could not be induced, save under the threat of being kept in the house, to take up a needle and struggle with the unhappy bit of patch-work that never seemed to progress beyond a most unsightly square that had been used to wipe away the tears from a very dirty little face bent over the obnoxious bit of ladylike employment, and the hospitals served to make up for the abhorrence of those childish days of anything that savored of respectable self-sacrifice.

Many other instances we have known where the most charming women have been evolved from the rude little tomboy girl; therefore, mothers, do not despair if the small daughter shows a decided penchant for tops and marbles rather than for dolls and sewing.—*Philadelphia Times*.

A DECORATIVE HINT.

A woman who is not an artist by education, but is certainly one by instinct, has solved that problem, "an ugly outlook," in a delightful way. Bead curtains, screens, everything expensive, cumbersome and tawdry, had been suggested, but most of them only succeeded in cutting off light and imparting gloom.

This woman's objectionable window opened toward a glaring wall within a distance of four feet. It was in one of the prettiest of rooms, where books lay about on the table, and she could not afford to lose the light in that corner. She bought some thin, yellow—golden-yellow—silk, measured it to her window, allowing a slight surplus to gather at top and bottom. Then she carried it to the veranda of an acquaintance, where a small-leaved vine made a distinct shadow on the floor, laid her curtain down to receive it in the most graceful fashion, and with "Payne's gray" in water-color carefully fixed those shadows. After it was put up to her window she arranged a seat with yellow cushions underneath. Across the top of the curtain she put a stiffened band of silk, with this inscription in the old English text:

"Oh for a booke,
And a shady nooke,
Either in a door or out,
With the green leaves whispering over heads,
Or the street cries all about."

On the dullest winter day the illusion is perfect of a flood of sunshine filtered through curtain and vine.

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A YOUNG LADY'S RULES.

The following rules of conduct fell out of the pocket-book of a young lady, and an unscrupulous newspaper reporter picked them up, says the *Paducah Standard*:

1. I don't let a man smoke when he walks or drives with me. If he knows no better than to do it, I promptly tell him what I think of it.
2. I don't give my photograph to men. I used to occasionally, but I am wiser now. I should hate by and by to know that my face might be hanging up in Tom, Dick or Harry's room.
3. I don't let a man take hold of my arm when he walks with me. If he does, I tell him I prefer him to give me his arm.
4. I don't go out with a man friend just because he asks me. I like it better if he asks another lady to go too—his sister, for instance.
5. I don't let any man "see me home" from church. If he hasn't gumption enough to take me there and sit through the services with me, he may stay away altogether.
6. I don't let a man friend give me presents unless it is something of a trifling cost, like fruit or flowers. And I always gage a man by his taste in this respect.
7. I don't encourage any young man who is not perfectly polite and agreeable to my mother. Whoever calls upon me sees a great deal of her.
8. I don't allow a caller to stay later than ten o'clock. If he does not go at that time, I politely tell him my custom.

A REMARKABLE FAN.

One of the most remarkable fans in Europe is that possessed by Adelina Patti, which bears on each of its folds the autograph signature of the principal rulers of Europe. The czar has added to his signature the words: "Nothing soothes so much as your singing," while the late Emperor William wrote: "You are the nightingale of ages." Queen Christina, of Spain, adds to her signature the following sentence: "To the Spanish Patti, a queen that is proud to number herself among the subjects of the songstress." Queen Henrietta, of Belgium, expresses her sentiments by means of musical characters, and has written the first bar of the celebrated Kiss waltz. Queen Victoria writes: "If King Lear speaks true when he says that a sweet voice is a costly gift for a woman, then you, my dear Adelina, must be the richest of all women." The emperor and empress of Austria have merely signed their names, while on the last fold of the fan is the sentence: "Queen of Song, I extend to you my hand," with the signature of Adolph Thiers, president of the French republic.—*New York Recorder*.

THE ANCIENT BETROTHAL RING.

The ancients wore the betrothal ring, as now, on the next least finger of the left hand. Many reasons are assigned for this, as the erroneous idea that a vein or nerve went direct to the heart, and therefore the outward sign of matrimony should be placed in connection with the seat of life; the left hand is a sign of inferiority or subjection; the left hand is less employed than the right, and the finger next the least the best protected. At one time it was the custom to place the wedding-ring on the right hand of the bride. The Anglo-Saxon bridegroom at the betrothal gave a wed or pledge, and a ring was placed on the maiden's right hand, where it remained till marriage, and was then transferred to the left.

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MR. J. W. SMITH.

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I think it was in the last of November I ordered a No. 4 Owen Electric Belt from you, but with little hope of such results. I received the belt some time in December, and it soon began to tell the tale. In a month's time, without a dose of medicine, I had got strong enough to get up and dress myself, and a month later I was able to go four miles to see a neighbor who was almost hourly expected to die with paralysis, that he had had for some eight or ten months. I insisted on his ordering one of your belts, which he promised me to do and which

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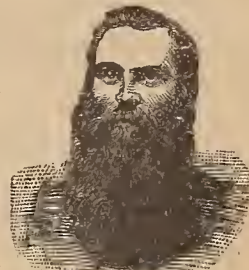
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hedid, and to-day, to the surprise of everybody, he is almost a well man, and can go where he pleases. His name is James Moor, an honorable gentleman. Another of my neighbors, Mr. Head, was suffering with nervous trouble. I gave him one of your books and told him one of your belts was all he needed. He ordered one and has been wearing it about two months, and he said to me a few days ago that it had about cured him. I am wearing my belt yet, but I am a well man. I have learned to love the influence of it, and it is only a matter of time when the old foggy way of drugging a man to death will be a thing of the past. When I first got my belt my lungs were so stiff that I could hardly breathe, and I decided to experiment with the belt a little and see if it would not relieve my lungs. Commenced wearing it up under my arms across my chest, and it relieved my breathing at once. I could soon breathe as free as I ever could. I have never seen it tried, but I believe it would have the same effect and relieve persons suffering with asthma.

Yours truly,
J. W. SMITH.
P. S.—Should any person doubt this statement, all I ask of them is to write to our Clerk of Circuit Court, County Judge, County Treasurer, Sheriff, or any of our county officers, who are all friends of mine and knew my situation.
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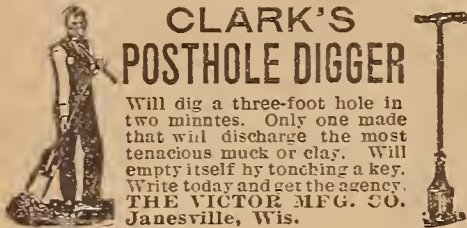
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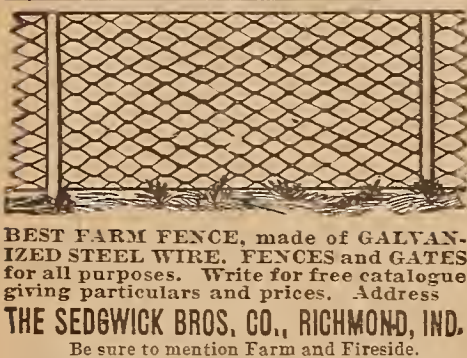
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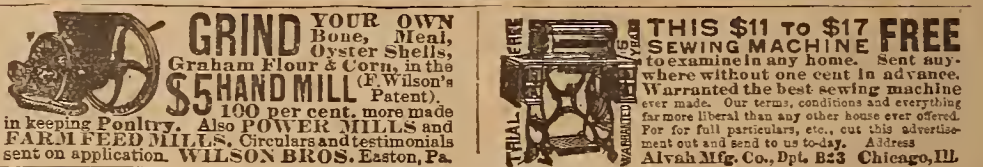
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Dear Sirs:—I have received the buggy in good order, and am perfectly satisfied with it. I think it the most nicely finished buggy I have seen in this section of the country. Every one admires it. My wife is highly pleased with it.
I am very respectfully,
J. B. WINTERS.
GRANGEVILLE, IDAHO, June 16, 1890.
Dear Sirs:—The set of \$5.50 harness that I ordered for Chas. Bentz, of this place, came O. K., and every one here were much surprised, as they are as good as harness sold here for \$20. Enclosed please find \$10 for which please send your No. 6, \$10 harness (nickel trimmed), by express to Frank Vansice. Yours truly,
E. BECK, Postmaster.
MANCHESTER DEPOT, VT., June 30, 1890.
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FARM & FIRESIDE.



22 PAGES, WITH SUPPLEMENT.

EASTERN EDITION.

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are printed. The Eastern edition being
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Farm and Fireside has More Actual Sub-
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Journal in the World.

OFFICES: 927 Chestnut St., Philadelphia, Pa.,
and Springfield, Ohio.

Current Comment.

THE affairs of the Ohio agricultural ex-
periment station are in a badly-
tangled condition. Proceeding in
good faith under a special act of the legisla-
ture, the station accepted Wayne county's
handsome offer of \$85,000 cash for the pur-
chase of land and the erection of suitable
buildings, bonds were sold, land was bought
near Wooster and the station removed
there several months ago.

Litigation commenced about the collec-
tion of taxes by the county to provide for
the redemption of the bonds. The supreme
court decided that the taxing clause of the
special removal act was unconstitutional.
The case is now in the lower court to test
the question whether the collection of the
tax and the payment of the bonds should
be prevented. After the land was paid for
there remained a balance of \$26,000 to the
credit of the station in the state treasury.
But the state auditor will not allow this to
be drawn upon for the erection of buildings,
on the ground that the appropriation for
buildings made by the legislature last
winter was not to be expended unless the
supreme court decided the removal act
good. Acting on the idea that the balance
of Wayne county's donation could not be
effected by this condition, the station con-
tracted for the erection of a block of green-
houses, boiler-house, etc. The buildings
are completed, but the contractors have
not received a dollar pay.

A joint committee of the legislature has
been appointed to investigate and unravel
the tangle. It is sincerely hoped that the
matter will be promptly and satisfactorily
settled, so that the station can go on with
its work. Its hands are now tied, and
pending litigation may cripple its work
for years.

The shortest way out is for Wayne county
to keep faith and immediately provide, in
some way, for the redemption of the bonds.
It looks very much as if Wayne county,
after securing the station, was playing the
baby act and trying to get the state to pay
her donation of \$85,000 for land and build-
ings. Wayne should keep her promise if
she wants to keep the station.

If Wayne county will not keep faith and
provide for the payment of the bonds, there
is another way out of the difficulty. Let
the state sell the lands, and with the pro-
ceeds and the unexpended balance redeem
the bonds. Let the legislature appropriate
sufficient money for the purchase of lands
and the erection of buildings for the station.
And then let the best location in the state
be chosen for the station, regardless of
county donations. The work of the station
would be interrupted for a few months, but
this would be a much better settlement of
the trouble in the end than for the state to

pay for the land and buildings at the pre-
sent location. Such a settlement would
always be unsatisfactory to the people of
the state. By the latter plan, the tangled
affairs can be straightened out and the
station secure, if not better land for its
purpose, a location much more accessible
to the farmers of the state.

THE *Breeder's Gazette* finds much en-
couragement for feeders in the pres-
ent condition of the hog market.
It says:

"It has been so long since anything ap-
proaching a fancy price has been obtainable
for any of the ordinary varieties of farm
stock, that the tremendous 'boom' in hogs,
which is the sensation of the hour in
stock-feeding circles, will certainly have a
tendency to restore somewhat the confi-
dence of western farmers in general. It
has been many years since hogs sold at the
prices now current in leading markets, and
board of trade speculators have not been
slow to take advantage of the situation to
bull the market for the packed product,
mess pork having mounted well up toward
twenty dollars per barrel. That the ad-
vance in pork and lard will enhance values
of tallow and suet scarcely admits of ques-
tion, and this in turn should favorably
affect prices for ripe corn-fed cattle. In
spite of the advancing tendency of the
cattle market which set in about the mid-
dle of December, receipts have thus far
continued moderate, and the impression
seems daily gaining ground that the tide is
really turning in the interest of beef
makers; that the persistent marketing of
breeding stock and wholesale slaughter of
calves is at length beginning to have its
inevitable effect. * * * * *

"Disappointment has so many times
come during the past five years to those
who took a hopeful view of the outlook that
there are now none to speak positively in
reference to the future of cattle. We have
all grown so accustomed to scanning the
horizon with blue goggles that we shall
probably none of us foresee the dawn of
better days for beef growers even when the
light is actually breaking. All we can say
is, that the gloom is not so thick just now
as it has been. Whether the rift in the
clouds is merely the precursor of another
thickening of the fogs and mists, or
whether it really portends clearing skies,
none are either wise or rash enough to po-
sitively predict. All signs fail, it is said,
during a protracted drizzle. Meanwhile,
let us derive encouragement as we may
from existing conditions. At present
prices for beef, hogs and corn there will
certainly be no money lost by judicious
feeders."

MAMMOTH clover has its place in a
system of crop rotation. An article
on one of the farm pages of this
number concisely tells how to manage this
crop. To this may be added an item.
Even when pastured as recommended,
mammoth clover frequently grows rank
and lodges badly, and much of the stalks
must be needlessly handled in harvesting
the seed. If there are indications that the
growth will be very rank, drag the clover
down with a long pole at blossoming-time,
or before it falls down, going around the
field the same way the reaper will go.
Then, instead of a tangled mass of stalks
lying in every direction, it will all be alike.
The tops will soon assume an upright posi-
tion, and when the clover is ripe the reaper
can easily be adjusted to save all the seed
by cutting only a few inches of the stalks.

IN an address at the recent annual meet-
ing of the Indiana state dairy associ-
ation, Professor Plumb stated that the
average yield of butter from the milk
cows of the state, for 1890, was not over
ninety pounds, which, at the annual aver-
age price of twelve and one half cents,
would make the income per cow \$11.25, or
with the skim-milk and buttermilk,
about \$15. Among the agencies which pro-
duce this one-hundred-pound butter cow
instead of a three-hundred-pound one is
neglect. For miles of his travels he had
seen gaunt cows humped up in corn-stalk
fields. This condition, he said, could only
be remedied by years of education.

Think of the hundreds of thousands of
dollars that have been lost during the past
two months of solid, old-fashioned winter
weather by this neglect, by the lack of good,
warm stabling, and by the lack of dairy
knowledge. The average cow and the
average dairyman are both in danger of
being frozen out. In this age of progress,
dairy education is absolutely essential to
success in the dairy business. The pro-
gressive dairymen who keep abreast of the
times in all matters relating to their busi-
ness will soon be so far ahead of their
careless, thriftless competitors that the
latter will be compelled to abandon the race.

ROADS are an index to the real civiliza-
tion of a country. Bad roads are a
heavy tax on those who have to
travel them. They keep down the value
of farm lands. Good roads are a good in-
vestment. They enhance the value of farm
lands. They pay large dividends in econ-
omy of time, in the comfort and pleasure
of travel, and in cost of transportation of
the products of the soil. Good roads are
worth more to a community than their
cost. Better roads are a necessity. Better
road laws are a necessity. But there is
danger of overdoing the agitation of the
road question. Much of the present un-
precedented agitation is timely and wise.
Some of it is unwise, and is hindering real
progress. Pushing and crowding things to
the extreme is a hindrance, not a help to
the good work. Some of the overzealous
preachers of the gospel of good roads are
driving converts away instead of drawing
them. It is easier to lead the builders of
the roads than to drive them, except to
drive them the wrong way.

THERE is a bill pending in the Ohio leg-
islature which provides for a com-
mission of four, to be appointed by
the governor, to investigate taxation in
the state. The commission is to meet in
May, is to be empowered to make a full
investigation of the subject, and is to re-
port to the governor by the first of Novem-
ber next. This is a move in the right
direction. The bill should pass. Let the
legislature also pass the bill providing for
the submission of a taxation amendment
to the constitution to the electors next
November. Then, if the amendment car-
ries, the next legislature, with the report
of the commission before it, will be in a
good position to promptly and thoroughly
revise our antiquated system of taxation.

IN making contracts with farm laborers
for the year or for a term of months, it
has been found satisfactory to propor-
tion the wages for each month to the value
of day's labor for that time. This plan can
be followed in a general way by taking the
average monthly wages for the spring and
fall months, and then adding about fifty
per cent for the summer months and
deducting the same for the winter months.

THE prices that good butter has been
bringing for several months past are
very encouraging to dairymen, and
ought to be a strong incentive for them to
study up the best methods and latest im-
provements.

Where conditions warrant, the greatest
profits can be made out of the business
through co-operation. In every neighbor-
hood adapted to dairying, where there are
cows enough to support it, and where the
farmers are good enough business men to
manage it successfully, co-operative dairying
should be established. A dividend
paying creamery is a blessing to a com-
munity. Expenses are reduced, drudgery
is taken out of the farm home, and profits
are greatly increased, all without the out-
lay of money for radical changes in farm
methods.

THERE is an object lesson now in the
United States senate for the farmers
of the country who have been taking
an active part in politics for the past few
years. Let them watch the record of votes
or legislation affecting agricultural inter-
ests. They will see senators from leading
agricultural states who, before elected,
posed as special champions of the farmers,
now voting steadily against their interests.
On the other hand, they will also see sen-
ators who have been denounced from one
end of the land to the other as the special
champions of Wall street, voting steadily
for legislation favorable to the agricultural
interests.

THE American hog is now receiving
more consideration than he has had
for several years past. Foreign mar-
kets have been thrown open to him. There
is not enough of him to go around. He
has greatly increased in value. At present
prices it is easy for farmers to figure up big
profits in swine husbandry. And the indi-
cations are that there will be a boom in
hog raising. When all his neighbors are
rushing into this business, the shrewd
farmer, for that very reason, will turn his
attention more particularly to some other
branch of agriculture. It is often more
profitable not to follow the crowd.

AN important item was given in a
dairy article in January 15th num-
ber, regarding the temperature for
churning when making sweet-cream butter.
The temperature determined by careful
tests to be the best is from 36 to 39 degrees
Fahrenheit, a very unusual one for churn-
ing. Many butter makers have failed in
attempts to make sweet-cream butter. Not
only too much time was required for
churning, but there was a loss in yield
compared with butter from ripened cream.
To those who wish to make sweet-cream
butter, a trial of the low temperature
named is suggested.

ACCORDING to the *Ames Times*, the
Iowa agricultural college, which did
not have a single student in the
course in agriculture two years ago, now
has fifty in the four years' course and sev-
enty in the winter course in agriculture
and dairying. Judging from many similar
reports, there must be more students now
taking the course in agriculture in the agri-
cultural colleges of the country than ever
before in their history.

THE present scarcity of hogs is prob-
ably due more to swine-plague than
to moderate prices. The ravages of
this disease check production more than
low prices. Swine raisers are willing to
take small profits, but not to risk a total
loss of their herds.

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letter of renewal.

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We believe that all the advertisements in this paper
are from reliable firms or business men, and do not in-
tentiously or knowingly insert advertisements from
any but reliable parties; if subscribers find any of
them to be otherwise we should be glad to know it.
Always mention this paper when answering advertise-
ments, as advertisers often have different things ad-
vertised in several papers.

Our Farm.

DEALING IN "FUTURES."

THE Hatch anti-option bill has in
view the accomplishment of
these objects:

First—To obtain revenue.

Second—To relieve the pro-
ducer of the destructive cora-
petition to which he is now subjected by
the offering upon the exchange of illimit-
able quantities of fiat or fictitious products
by those who do not own and have not ac-
quired the right to the future possession of
the articles which they pretend to offer and
sell.Third—To restore to the law of supply
and demand that free action, which has
been destroyed by the practice of "short-
selling;" which practice has of recent years
become the one mode of determining the
price of such agricultural staples as can be
graded, while the ordinary methods of
commerce are found to suffice for those
which cannot. By the practice of short-
selling now so common upon the exchanges,
where not to exceed one tenth of the grain
grown is marketed, prices are determined
for the entire product, and often months
in advance of the sowing of the seed (this
is especially true of the staple products of
southern plantations), thus despoiling the
farmer and planter of that voice in fixing
the price to be received for the product of
his labor and capital which is accorded to
other producers.Fourth—That market quotations now
made by the limitless offers of fiat products
by the short-seller, regardless of the value
of, or the volume of, actual products in ex-
istence, may again be determined by the
offerings of real products by the owners
thereof or by those who have acquired
from such owner the right to the future
possession of the articles offered, and there-
by to limit the amount to the actually
existent offerings of the staple products of
the farm.Fifth—To prevent the overloading of
domestic markets and the breaking
down of prices of farm products by short
sales made by foreign merchants for the
purpose of insuring them against possible
loss on purchase of Indian, Egyptian,
South American, Australian and Russian
produce, whereby the American farmers
and planters are made underwriters of the
commercial risks of the European, by
whom no bonus or premium is paid for
assuming insurance risks that destroy much
of the value of our products.Sixth—That by restoring the functions
of the law of supply and demand, now
inoperative by reason of the limitless offers
of the short-seller, a measure of relief will
be given and prosperity partially restored
to that great class constituting more than
forty per cent of our population who in-
habit the farms, and whose lacking pros-perity is due in no inconsiderable part to
the practice of short-selling, whereby the
prices of the products of the farm have been
determined and fixed during recent years
at an unremunerative level.Seventh—To restore to the producer
an honest market and such prices as will
follow the unfettered operation of the law
of supply and demand, which, the com-
mittee believe, will be sufficiently remun-
erative to restore in part the power of the
farmer and planter to purchase the product
of forge, factory and mill, and thus bring
prosperity to the artisan, manufacturer,
distributor and transporter.The benefit that would be derived by the
farmer, should this bill become a law, is too
evident to be a subject of serious dispute.The source of the opposition to its passage
is one of the strongest arguments in favor
of it. The fight has been made by repre-
sentatives of boards of trade, and up to the
present they have been successful in keep-
ing the measure back. It is to be hoped,
however, that this may not long continue.
Speculators recognize that this law will
leave them gamblers "out of a job," and
this fact, naturally enough, makes their
opposition the fiercer.The law of supply and demand should
have untrammelled operation, thus tending
to make prices more staple; giving to the
producer a voice in setting the price on the
products he has for sale, and making fin-
cinations from illogical causes a thing of the
past.There is hardly an industry in our land,
beside that of farming, but that has
realized benefit from combination; there is
not one that has needed the benefit thus
derived more than the one just mentioned.
Some competent, directing hand at the
helm is badly needed to guide the ship of
agriculture in a smoother course. The
needs of our farmers have always been
numerous and urgent, but from lack of
universal demand and proper insistence
they have usually gone unheeded. Beyond
question, the passage of this bill is one of
your greatest present needs; but, from a
wishy-washy, weak-kneed demand for the
same, it is likely to be pigeonholed per-
manently. Make your representative in
Congress believe, by your determined and,
if necessary, by your oft-repeated appeals,
that you are in earnest, and the result will
no doubt justify the effort.It seems that the evil consequences of
speculation are not fully realized. In view
of this fact I will quote a letter, in full, that
was forwarded a year ago to Mr. Hatch's
committee having in charge the investiga-
tion of this subject. Mr. S. W. Hampton,
a cotton factor of Memphis, Tenn., fur-
nished this very interesting and clear
evidence, and it needs to be carefully read
by all farmers, as he is eminently a proper
and competent person to speak on this sub-
ject. Mr. Hampton says:"I have been in the cotton business since
1863, and have been acquainted with the
workings and effects of the 'future' business
since its inception to the present time. It
has certainly grown into an unspeakable
injury to the cotton trade, and its effect
almost constantly has been to depress prices
below their natural level. The cotton-
future business is controlled entirely at
New York, New Orleans and Liverpool,
New York having the commanding
influence in this country. A ring of men
control it there, and make the prices which
are posted on their boards, and these, being
wired all over the land, decide the course
of the market. They have control of all
the machinery of the business."The people of this country have natural-
ly a strong speculative tendency, and not
knowing how the future market is
manipulated, and thinking the chances
equal for upward and downward changes,
and believing all to be fair, many of them
buy futures, as it takes less money to do so,
and they avoid the expenses that attend
carrying the cotton itself. When they buy
they are required to put up one dollar per
bale margin in the hands of the New York
operators, and for every decline of twenty
one-hundredths of a cent per pound they
must put up an additional one dollar per
bale; then by pressing prices down, the
operators get immense sums accumulated in
New York as margins. When such a prize
is at stake, the New York rings never allow
it to escape them."Having such complete control of the
machinery, they continue to depress prices
and call for additional margins until the
buyers are exhausted or discouraged and
sell out, losing all they have put up. This
year (1892) is a striking illustration of the
evils of the future business in cotton.
When prices had declined to eight cents formiddling, a great number of our southern
merchants and planters, believing this
price too low to stand, and looking confi-
dently and reasonably for improvement,
bought futures largely and put up their
margins. Then the process of gradually
squeezing began. Prices were reduced and
more margins called for. This was repeated
again and again. The weak buyers put up
two or three times and were then forced to
give it up; but the stronger buyers held on,
feeling that the lower it now went the
more certainty there was for a big reaction.
So they continued to put up margins, some
as many as five, six and eight, as the decline
went on. Memphis alone, as estimated by
parties well informed, sent over \$1,000,000
to New York last winter for margins on
cotton futures."The entire South, having the same faith
in better prices, has done the same thing,
and at this time there are doubtless
\$10,000,000 or more held in New York as
margins on future deals still unclosed and
pending. This is the prize now before the
rings, and they will move heaven and earth
to capture it. This can only be done by
depressing prices and squeezing out the
holders, and as the rings have full control
of the future boards, they continue to
squeeze the markets down. They never
allow such a prize to escape them; they are
few in number, well organized, with im-
mense capital to back them. The buyers
are scattered everywhere, unorganized, and
means very limited. The result cannot be
doubted. When these rings desire to break
the market they notify the spinners that a
further decline is coming, and give many
reasons why it should, and advise them to
hold off and keep their orders back. Of
course, the spinners are always ready to
help a decline in raw cotton, and they act
accordingly, knowing full well the power
of the rings to make good their predictions.
Then the squeezing process goes on in
futures with but one result."It is true, the future business has become
ingrafted on the legitimate trade to some
extent, but where there is one bale sold on
legitimate contracts, there are one hundred
sold in pure speculative or gambling deals."So fully is it recognized by cotton men
that the rings control the market that it is
a common saying in our exchanges that if
one will watch and take the same side with
the rings, and against the general public,
he will come out all right and make
money."This recognizes the fact that the market
goes whichever way the interests of the
rings lie. But the trouble is that they keep
their schemes and purposes so very close
that the general public or an outsider never
can ascertain what they intend to do. The
rumors they allow to get out, or intention-
ally put out, are always intended to mislead
and deceive, and the tendency of our
southern people is always to hope for and
believe in better prices, so that nine tenths
of their operations in futures is on
the buying side. The rings, like the
bankers in games of faro, hold themselves
ready to buy or sell, just as the outsiders
wish. The latter take their choice, and as
tendency is to buy, the rings become the
sellers. Thus their (the ring's) interest is
on the side of lower prices, and they use
the machinery of the future boards, which
they control exclusively, to put them down,
and so thoroughly are they the masters of
the situation that they rarely fail to ac-
complish all they wish."There is no doubt whatever that the
tendency of the future business in cotton
is nearly always and all the time to depress
values."Ten years ago (1881-2) the cotton crop was
very short, and the knowledge of this fact
led our southern people and others, ont-
siders, to buy heavily of futures. Every-
body, in all lines of business, who could
raise some money for margins, went into
it, counting surely on better prices on
account of the short crop. Merchants,
lawyers, doctors, mechanics, drummers,
everybody took a hand, and seemed to fear
there would not be enough futures to go
around. It was more general than I ever
knew it. Well, the crop was short; but in
the face of this, and in spite of it, the rings
having sold futures to the whole country,
went to work to squeeze prices down and
capture the immense pile of margins that
had been put up. By the methods they
know so well how to use, and in the face
of all the facts that would naturally have
put prices up, they forced them down some
three cents per pound, and thus squeezed
out this multitude of buyers—'lambs,' they
facetiously called them—and got their
money. When this had been accomplished
and there was no longer any inducementto depress prices, the market reacted quick-
ly and rapidly to the extent of some four
cents per pound, and values reached the
level which the conditions of legitimate
supply and demand justified. That season
it was estimated by our best informed
business men that the South alone lost not
less than \$30,000,000 on futures, all of which
went into the pockets of the rings. Is it
strange that, with such enormous gains in
prospect, and that, too, without a single
lick of honest work and without any com-
mensurate investment of capital or risk—is
it strange that the men who gather in this
golden harvest of dishonest plunder should
fight vehemently against any and every
effort made to stop or check the nefarious
business?"You will find that the opponents of the
anti-option bill are parties from New York
and Chicago mainly, who represent these
rings; or they are brokers like ours here in
Memphis, who do use the future business
in a legitimate way in connection with
their buying trade. The latter say they
could not buy our cotton as they do unless
they could at once cover such purchases by
future sales, and thus protect themselves
against possible shrinkage in values while
the cotton is in transit to Europe. But the
cotton buyers' business was carried on
freely before ever this future evil was
inaugurated, and it is all bosh to say it
cannot be carried on without it now. In-
deed, our oldest and most experienced
buyers say their business was far more
satisfactory before the future business was
ever known."The truth is, it is a terrible excrescence
which has gradually and insidiously
fastened itself on our business and com-
merce, until it threatens destruction and
death to all legitimate trade on which it is
ingrafted. It will be difficult to extermi-
nate it. The rings can afford to expend
millions to preserve it, and will use money
and every other influence to do so. New
York fattens on it. It is like a great devil-
fish, with its horrible body located there,
and stretching its deadly tentacles, covered
with suckers, all over the land, exhausting
the life-blood of honest, legitimate trade,
and bringing poverty and ruin to tens of
thousands of foolish people who venture to
touch it."I think fully nine tenths of our cotton
factors entertain the views as to the future
business expressed herein."I most sincerely hope your bill will pass
in some effective shape."It is astounding that such a state of affairs
exists, but evidence of this character was
so abundantly furnished the committee
that it would be idiotic to deny that spec-
ulation has wrought a great evil to pro-
ducers.What is above stated in regard to cotton
has equal application as regards other
crops. Why sit with folded hands and use-
less intellects and allow a great evil, that it
is within your power to correct, to make
your industry unprofitable? I am not
blind to the faults that could be easily cor-
rected by a little rearrangement of farming
methods, but it seems that where a duty is
so plain and a benefit so apparent, await-
ing the performance of that duty, it would
be worse than a fault not to be active in ac-
complishing so beneficial a result.I trust that every reader of FARM AND
FIRESIDE will immediately address a strong
appeal to the member of Congress from his
or her district asking that he support this
measure. By so doing you will have per-
formed a righteous duty in urging the
passage of a bill of unusual merit.

E. M. THOMAS.

GLANCES OVER THE AGRICULTURAL FIELD.

TOMATO CULTURE.—In 1891 we had an
unprecedented season of glut in the tomato
market. Even in the early part of the sea-
son at a time when tomatoes from near by
are usually yet a scarcity, I thought it
hardly worth while to gather and market
the Early Ruby crop then beginning to
ripen in abundance. My home market
(Niagara Falls), being of limited consum-
ing capacity, was soon overstocked, and I
imagined (wrongfully) that I had not
enough of a crop to gather to pay me for
shipping to Buffalo. Later on the one-
third-acre patch was "red with tomatoes,"
and I left most of them to rot on the
ground. At the same time, however, I had
reports from various localities in western
New York where tomatoes were scarce,
and readily brought from one to two dollars
per bushel all season long.Last year (1892) came a general wave of
high prices for almost all vegetables, celery
excepted. Whoever had nice tomatoes
could usually find a buyer, and get a nice

price for them. I think I have already told you that a friend of mine traded with his neighbors a basket of tomatoes for a basket of eggs, right along. I considered it an easy way of getting eggs, and a high price to pay for tomatoes. But the "neighbors" did not think so. They were glad of the chance to get some nice, smooth, round tomatoes, and they never value eggs very high anyway. They have them; they do not seem to cost money, and do not take in consideration that they bring money or money's worth at the stores. This shows that tomatoes are a valuable and much-prized crop, giving good opportunities for profit, especially when we consider that they are so easily grown and involve so little expense.

Right here in this vicinity, as far north as we are situated, farmers have, during several years, grown them for a canning factory for about twenty-five cents a bushel, and found money in the crop. They do not grow them much now, simply because there is no canning factory in the vicinity, and they do not like to bother themselves about shipping to city markets, or peddling them out in the limited Niagara Falls market. The great drawback in the tomato growing business to the general farmer is that they seldom know how to get any considerable portion of their crop early enough to catch the good prices of that season. When they have tomatoes, everybody else has them in abundance, and prices are low, especially for inferior fruit. I have seen great quantities of badly-ripened, wrinkled, soft tomatoes in the Buffalo markets. It is stuff that I would not buy were I ever so hungry for tomatoes. But nice, smooth, plump, brilliantly-colored fruit always attracts me and tempts me, as it attracts and tempts the buyer. The poor stuff always demoralizes the market, and the really fine fruit, while it is in demand, yet has to suffer to some extent by this unworthy competition. There is much need yet of a better understanding of the "secrets" in tomato growing, and of the requirements of the crop. The "poor-soil-for-tomatoes" theory has been worked by far too much. The crop wants moderately rich soil, good corn land for instance, and liberal feeding with mineral plant-foods, especially phosphoric acid, to do its best. On poorly-fed plants you may expect poor, scrawny, wrinkly fruit. Good feeding makes plump, smooth fruit. That is my experience. On land in good heart, nitrogen may not be needed; but if that element is lacking, it may be supplied in nitrate of soda, or in the old way, manuring with stable manure, or even with a light application of poultry droppings.

There is another feature about tomato growing. While we can grow this crop so cheaply, the people in old England, who are also lovers of the delicious fruit, cannot produce it at all, except under glass. I do not think there will be the least difficulty in keeping tomatoes long enough to stand shipment from here across the Atlantic, and reach the English consumer in good condition. Sooner or later the American farmer will supply the English people with good tomatoes, and it will take a good many acres to supply this trade. Canned tomatoes and catchups, etc., will also be more extensively used than heretofore.

For a long time I have felt the want of a good "guide to tomato culture." It is strange that this important crop has thus far found so little room in our permanent literature. For a year or two I have been threatening to write a book on "Tomatoes for Profit," but ere this have not found the time.

Now comes my friend A. I. Root with his little volume on "Tomato Culture." I do not fear that it interferes with my plans. I am rather glad of it, because it will do good, and it teaches, just as well as I could have done, or better, that the tomato needs fairly good soil and better treatment, if a really satisfactory outcome is to be expected. The book is written by three authors—J. W. Day, who treats on tomato growing in the South, and uses cloth instead of glass for his cold-frames, etc.; by D. Cummings, who writes about tomatoes for canning, and uses live steam under his hotbeds, and by the publisher himself, friend Root, who fills nearly one half of the book with his "How to Support a Family on One Fourth Acre of Ground." Mr. Root is an interesting and instructive writer, and his part of the work alone is worth the thirty-five or forty cents he asks for the whole. The only fault I might find with the work is that he gives so much for the money. Still, I think there is room for a systematic hand-book on "Tomatoes for

Profit," and I intend to go at it at once and try to write it. But my friends may be sure I shall ask no less than fifty cents a copy for it.

T. GREINER.

MAMMOTH CLOVER.

The farmers are beginning to appreciate the great renovating value of clover. Year by year the acreage is increasing, and with it, by necessity, a more systematic rotation of crops.

Important as it is there are some practical difficulties connected with its use.

Handle it as you may it is a hard crop to convert into well-cured hay. When well cured it is not a salable crop. It must be fed on the farm in the majority of cases. It has become increasingly difficult to do so at a fair return with the general systems of farm management at present in vogue. It is not always possible to change the conditions so that the clover hay may be fed at a profit.

There is another practical difficulty in central and southern Ohio. Oats are relatively less profitable than corn and wheat. For example, on the Ohio state university farm, during a series of years, the gross returns from an acre of oats has been only about one half that of corn and wheat. This is probably somewhat exceptional, but there seems to have been a marked decrease in the acreage of oats in central and southern Ohio.

Now, if oats are not a part of a system of rotation, the general farmer is limited to corn, wheat and clover, or timothy, or both. If wheat follows corn, it must generally be sown on corn stubble. If this wheat is sown to clover, or timothy, the surface is comparatively rough for mowing, and the corn stubble is apt to rake up in the first hay crop.

Some of the difficulties above mentioned may be overcome by the use of mammoth clover instead of red clover.

Mr. Markel, of Adelphi, in a lecture before the Kingston Farmers' Institute, said that he had been raising mammoth clover for about twenty years, and that with the use of this variety he was able to grow three crops with one plowing. His rotation is corn, wheat and clover. The land is plowed for corn; the wheat is sown in the corn stubble after the corn is cut and the clover of course sown in the wheat. The mammoth clover produces but one crop a year, and produces the seed in this crop, ripening about the first of August. He believes he gets enough more seed from the mammoth clover, as compared with the common red clover, to more than pay for the loss of the hay crop. Three and a half bushels had been an average crop.

A large amount of vegetation is left on the ground, as the crop grows very rank and only the tops are cut with the self-rake reaper. The halms are spread on the thin places after the clover is thrashed. By this method there is no hay to feed and the corn stubble does not interfere with the cutting of the clover for seed.

The clover is cut with the self-rake reaper, using every other or every third rake; the smaller the gavel the better. After a time each gavel is carefully turned over by the use of a three-tined wooden fork. Three times are much better than four. The same fork is used for unloading at the huller, as it saves the possibility of injury to the feeder. A steel four-tined fork is used for loading. One man bunches the gavels with the wooden three-tined fork, for two loaders. Mr. Markel believes many fail in getting good returns from their clover because they thresh it before it gets to the huller.

Mr. Markel pastures his clover-field until the first of June and feels sure that he increases the crop of seed by so doing. He also pastures again in the late summer and fall, so that he gets pasture all but about ten weeks in the season. He does not believe that the fall pasturage is injurious.

Ohio State University.

T. F. H.

COUNTRY ROADS.

At the present time there is a great hue and cry about the rough and rocky, the sloughy and muddy roads throughout the country. It is important to have good roads—to have all things good, at least better—but there are some things quite as important or desirable as roads, or roads for which there is just now a clamorous demand.

But whence comes this information that our roads are in such a discreditable condition; whence the cry, the plaintive cry for better roads and smooth ways? Some writers appear to think that country towns have nothing to do except to build roads. Were the roads discovered to be in such a

bad condition before the bicycle began its travels? Has not all this discussion—if not defamation—of the character of the public roads sprung up since the bicycle took to the roads?

It is true, there are bad roads, very bad at some seasons of the year, and it is also true that there are good roads—roads good enough the year around for all practical purposes. A traveler in March, anywhere, will find bad roads in this latitude, but in the summer and autumn the traveler may ride straight on for hundreds of miles on good, hard roads. They are not modern roads; there may be an occasional outcropping of a ledge in the middle of the road, a gully here and there, and many water-bars, the usual country device for turning the water into the gutter.

These roads generally are good enough for all traffic that is likely to pass over them. Here is a stretch of road with grass growing between the wheel-ruts and the horse's path; the grass, and the brush and weeds grow on each side up to the wheel-tracks. Teams may pass without inconvenience, but they must turn into the roadside weeds. The pleasure-seeker in a carriage finds this a delightful road; the wheels run almost noiselessly, and it is cool and shady. It would be folly to plow up the roadside, and pile up and roll down in the center. The road has not been touched since it was built, and it may never be different from what it is now. But it is not suited to the bicycle rider. He is not always treated in the country with the courtesy he thinks he ought to be, and a team may refuse to turn out for him. He fears the diagonal cut across the grass strips, and not knowing what may be in the roadside weeds and brush, is obliged to dismount. The result may be that he reports very bad roads.

Any one acquainted with town affairs—town indebtedness—knows that there is no money to be expended on modern roads. Roads in many towns might be better, but roads in most New England towns are fairly good; at all events, good enough for the use of the town, and as good as the town can afford.

While it is hoped that the bicycle rider may keep his seat and escape all injury, yet he must remember that his vehicle is a pleasure-carriage used for his sole benefit, and that roads cannot be built to accommodate him. Reports in papers show remarkable skill on the part of the bicycle rider in crossing mountains, rounding cliffs and making way where there is hardly a trace of a road, and yet when a rider strikes a big cobble on a country road, the town is accused of neglect that is almost criminal.

The better the roads are the longer will wagons wear, but there is another factor that enters into the life of a wagon. Here are two farmers living side by side. They use the same roads, and yet the wagon of one will last twice as long as that of the other. This is not an argument for bad roads, but it shows that the roads, even if they are bad, are not responsible for all the wear and tear of farm-wagons. The best roads possible are the cheapest in the long run, but no town has the inclination or the means to make roads for which an interested part of the public now makes demands.

GEORGE APPLETON.

After the Grip

"I was very weak and run down and did not gain strength, like so many after that prostrating disease. Seeing Hood's Sarsaparilla highly recommended, I began to take it, and was more than pleased with the way it built me up. I think it has made me better than before I was sick. I have also been delighted with HOOD'S PILLS, and always prefer them to any other kind now. They do not gripe or weaken."

Hood's Sarsaparilla

and Hood's Pills." MRS. ISAHIA EMERSON, Manchester, N. H.

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FOR 25 CENTS we will mail free to any address eight packets choice flower seeds all of which will bloom this season, a very choice collection, one packet each, **Chrysanthemum**, choice varieties: **Zinnia**, choice double: **Dianthus**, fine double mixed: **Pansy**, fine mixed: **Phlox**, choice strain: **Petunia**, fine hybrids: **Calliopsis**, choice, double **Aster**, fine mixed.

FOR 20 CENTS we will mail free to any address eight packets choice flower seeds all of which will bloom this season, a very choice collection, one packet each, **Chrysanthemum**, choice varieties: **Zinnia**, choice double: **Dianthus**, fine double mixed: **Pansy**, fine mixed: **Phlox**, choice strain: **Petunia**, fine hybrids: **Calliopsis**, choice, double **Aster**, fine mixed.

FOR 40 CENTS we will mail both the above collections, all choice fresh seeds. **Order now** for our **Horticultural Guide for 1893**, the most complete ever issued, containing the latest novelties in Seeds and Plants. The great demand for these collections alone enables us to make so liberal an offer. **Currie Bros., Seedsmen, Milwaukee, Wis.**

\$1.00 FOR 4 TOMATOES!

This Wonderful

"EARLIEST TOMATO IN THE WORLD"

is a perfect success. It has proved the earliest and best and bears abundantly of large bright red tomatoes, very smooth, of excellent quality and free from rot. My plants set in garden last of May produced full size ripe tomatoes July 2nd. I want a great record for it in 1893, and will pay \$5.00 cash to a person growing a ripe tomato in 75 days from day seed is sown, also \$4.00 to the person growing a ripe tomato in least number of days from day seed is sown. \$2.50 for next and \$1.25 for next and \$1.25 for next. Beware of imitations. I own all the seed. Never offered before. Is all head and sure to head, very uniform, of large size, firm and fine in texture, excellent quality and a good keeper. I will pay \$1.00 for heaviest head grown from my seed in 1893, and \$50 for next heaviest. Single heads have weighed over 60 pounds.

SURE HEAD CABBAGE is all head and sure to head, very uniform, of large size, firm and fine in texture, excellent quality and a good keeper. I will pay \$1.00 for heaviest head grown from my seed in 1893, and \$50 for next heaviest. Single heads have weighed over 60 pounds.

GIANT SILVER QUEEN ONION is large and handsome, single specimens under sworn testimony have weighed over 5 lbs. They are of mild and delicate flavor, grow rapidly, ripen early, flesh white and handsome. I will pay \$1.00 for heaviest onion grown from my seed in 1893, and \$50 for next heaviest.

ALICE PANSY has created a sensation everywhere. They grow larger and contain the greatest number of colors (many never seen before in pansies) of any pansy ever offered. I offer \$500 to a person growing a Blossom measuring 4 1/2 in. in diameter, and \$300 for largest blossom grown, \$100 for second, \$50 for third, \$50 for fourth, \$50 for fifth and \$50 for sixth. Full particulars of all prizes in catalogue.

MY CATALOGUE offered persons sending me largest number of customers, and \$500 for largest club orders. \$1.00 customers get 50 cents extra FREE.

MY OFFER I will send a packet each of Earliest Tomato in the World, Sure Head Cabbage, Giant Silver Queen Onion, Alice Pansy and Bargain Catalogue, for only 25 cents. Every person sending silver P. N. or M. O. for above collection will receive Free a packet Mammoth Prize Tomato, grows 14 ft. high, and I offer \$500 for a 4 lb. tomato grown from this seed. If two persons send for two collections together each will receive Free a packet Wonder of the World Beans, stalks grow large as broom handle and pods are 18 in. long. It is a perfect wonder. F. B. MILLS, Rose Hill, N. Y.

SEEDS

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Best in the World.

By mail, postage paid, 1 cent a package and up. Grand lot of EXTRAS given with every order. Prettiest and only FREE Catalogue in the world with pictures of all varieties. Send yours and neighbors' address.

R. H. SHUMWAY, ROCKFORD, ILLINOIS.

SEEDS

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Seed Potatoes, Fruit Trees, Plants and Vines of Old & New Varieties. **OUR NEW CATALOGUE** is a common sense book for common sense people. A plain talk about the best seeds, etc., and honest prices. Every planter should see it at once. Sent Free. **FRANK FORD & SON, Ravenna, O.**

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7 Peach " " " " " 1.00
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Grape Vines, best varieties, Concord, Worden, Brighton, Moore's Early, Niagara, 2 each, prepaid, for \$1.00.
7 Double Tuberoses, " 25c.

SEEDS

10 packets of Flower Seeds, 10 varieties of 100 colors, prepaid for 25 cts. Our cut rate list sent free. The Elizabeth Nursery Company, Elizabeth, N. J.

FREE

Our Farm.

HOME GARDEN NOTES.

WHITE TOP-SET ONIONS.—This time I have put my foot in it. Yes, an old gardener like myself should have known that there is such a thing as a white variety of top sets. Two or three seedsmen catalogued it in 1892, and from reports received during the past two weeks, I learn that it has been in cultivation in various parts of the country for a number of years. One of our readers, Anton Adam, has kindly forwarded a few top sets, and I will give them a trial this year. Mr. Hugo Beyer, seedsmen, of Iowa, also offers me a quantity for trial, and claims for them extreme earliness and superior quality. On the whole, however, I have paid little attention to the business of raising onions from sets, either top or bottom, as this method of onion growing seems to me rather clumsy and round-about. By starting Barletta from seed under glass or in the house in February, and setting the plants in open ground just as soon as the soil is in working order, we can have green onions about as early as in any other way. Still, the home gardener likes to make a sure thing of having young onions for early table use, and the practice of planting a few sets, or potato onions (multipliers, etc.), in the home garden is always to be commended.

A Missouri subscriber, John P. Yadan, says he does not think there is a finer onion grown than this white top-set onion, but it does not keep quite as well as the red kinds. "We pull them as soon as the tops wilt down, tie in bunches and hang them up in the smoke-house or any dry place. It is productive and grows to a large size."

Another subscriber claims to have grown this onion for forty years, and thinks it is unsurpassed for home use, although perhaps of little value for market.

THE CATALOGUES.—By the time this gets into print, seedsmen will be sending out their catalogues by millions. Most of the readers of FARM AND FIRESIDE probably receive a number of them, and I would even advise to send for still more. You should have the catalogue of at least a dozen of the leading seeds and plant men in the country. It will not cost you more than a few stamps at most to get them. They are works of art, and represent a vast amount of thought, and study, and work, and expense. A file of them also represents a record of progress in horticulture. From year to year we can note in them the change in varieties, in implements and methods. If, for instance, you wish to see what progress we have made in tomato culture, follow up the varieties as offered and described in the catalogues of leading seedsmen for the past twenty years. And so with other things. On the other hand, don't lose sight of the fact that catalogues are gotten up, and written up, and illustrated with the one great aim in view to make sales. You must expect that the goods offered in them are shown off in the best light, and none more so and with greater care to hide defects than the high-priced novelties. There is some trace of deceit in almost all catalogues, and a good deal of it in many. From a business standpoint perhaps this will be called business tact, shrewdness, salesman's skill, etc. Surely, we find it in all branches of business. Sometimes this amounts to misrepresentation and actual dishonesty, and this misrepresentation is often so gross, so barefaced, so self-evident, so plainly visible to ordinary good judgment, that I often wonder people allow themselves to be humbugged so easily. These sharp business practices seem to pay, and there are instances of great financial success, which appear to be a great temptation to other catalogue makers. Fortunately, however, our leading seedsmen deal fairly and squarely, and the few that do not, form an exception.

While it is true that there are many unexplored mysteries and possibilities in nature, and that we can really have no idea what great and unlooked-for things we may yet see in the vegetable kingdom, yet there is no necessity of believing everything that salesmen and certain catalogue makers will tell us. We should use a proper amount of discretion. When a person promises too great things, or offers a whole string of striking novelties, each of which is the best that was ever known and far superior to what anybody else has, my suspicion is aroused at once. "Methinks

he protests too much," and I simply refuse to believe him. The field of novelties has been pretty thoroughly explored in recent years, and a seedsman comes across a real valuable new thing only now and then. It is not likely that any one seedsman will get at one time a whole lot of valuable new things of which others know nothing. While it is possible, perhaps probable, that we may find fruits and vegetables that surprise and astonish us, yet I do not expect that I will ever raise a strawberry that fruits immediately after it is set out, or a berry as big as a goose egg, or a tomato that will give ripe fruit in two months from sowing seed. I am not looking for melons and pumpkins growing on trees, or English walnuts on running vines, nor for peach-trees that will give a full crop the first season after planting, nor for anything that is improbable, absurd or impossible. I would not buy a thing of an agent or seedsman who makes any such claims. Let us use proper discretion in these respects. Test the promising novelties, but look out for the man who promises too much.

Now, when you get your catalogues, examine them with care; then make out your list of seeds you will want for next season's use, and place your order without much delay. In my next I will give a list of the vegetables that I have selected for planting in my kitchen garden.

JOSEPH.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

POINTS IN PEACH RAISING.

After his address on orchard fruits, delivered before the Massachusetts state board of agriculture a fortnight ago, Mr. J. H. Hale, who is perhaps the most successful grower of peaches in New England, replied to a volley of questions from his auditors. The off-hand answers were quite as good as the address, and we add a few of them.

Peaches should be fed with chemical fertilizers only. We apply every year all we can afford; that is, about 1,200 pounds of bone and from 400 to 800 pounds of muriate of potash to the acre. Too much is better than not enough. Sulphate of potash gives the best color to peaches, but cotton-hull ashes is perhaps a better form of potash.

Yellow-fleshed peaches have more tender fruit buds than other kinds.

We shorten in the new wood from one third to one half in the spring when the fruit buds begin to swell.

We can get a good peach crop with ninety per cent of the buds winter-killed.

After the fruit is set for a full crop, we thin until there are no two peaches within from four to six inches of each other. This is a costly treatment, but it pays. The extras sell for six times as much per peach as the seconds do, and they do not exhaust the tree as much.

The finest fruit this year came from fourteen-year-old trees.

An elevated plain is not as good for a peach orchard as a hillside with a sharp declivity.

The fruit should be fully mature, but not mellow, when it is picked. Pickers are trained to judge ripeness by color.

Peach orchards should not be cultivated after the middle of July.—*Garden and Forest.*

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Strawberry Seedlings.—O. G. J., Mauston, Wis., writes: "Will you please let me know if strawberry-plants from seed bear fruit like the plant it came from?"

REPLY:—No. Not one plant in five thousand seedlings of our best kinds will be as good as their parent, and most of them will be nearly worthless.

Kerosene Emulsion—Bordeaux Mixture.—M. B. G., Gold Beach, Ore. Soft soap, one quart, or hard soap (preferably whale-oil soap), one fourth of a pound; hot water, two quarts; kerosene, one pint. Stir until all are permanently mixed, and then add water until the kerosene is one fifteenth of the whole. To prepare the Bordeaux mixture, dissolve six pounds of sulphate of copper in five gallons of water, and slake four or five pounds of

lime in enough water to make a thick white-wash. In order to allow the copper sulphate to dissolve and the lime to slake, do this a few hours before mixing the two. Put the copper solution in a fifty-gallon kerosene-barrel, strain the whitewash into it, through a coarse sack, and add enough water to fill the barrel.

Leached Wood Ashes.—H. R., Green Bay, Wis., writes: "Please give us the value of leached wood ashes. We have a potash factory here and can get the ashes they throw away cheap. We would like to use the ashes on strawberries."

REPLY:—They are not worth anything more than the hauling, and if from soft wood, they would not be worth hauling two miles. The potash is all gone, and they probably contain only a very small amount of phosphoric acid. They contain much lime, but the lime is not needed on Wisconsin soils.

Bone-dust for Blackberries.—E. M. W., Kansas. If the land is rich now and the black raspberries make a good, strong growth each year, it would be worthless to put any bone-dust or other manure on it. But if the plantation has been in bearing several years and is getting somewhat weak, a good dressing of bone-dust would probably greatly benefit it. However, if you can get plenty of stable manure without hauling it too far, it will be the best fertilizer you can use, and far better than bone-dust. It should be applied broadcast in the spring. Five hundred pounds per acre should be enough.

Journal on Fruit Growing.—A. S. would like some periodical treating on the subject of fruit raising. There is not a paper in this country devoted solely to the subject of fruit raising. I think you would get the most in this line by subscribing for *Orchard and Garden* and *Popular Gardening*. The best work on fruits is "Thomas' Fruit Culturist," but it is much out of date, and has but little on the subject of spraying, fertilizers, etc. Bailey's "Horticulturists' Rule Book" (issued annually) is a valuable work to have in one's library for ready reference. Besides these and the papers, you had better get the reports of the Ohio, western New York and the Michigan horticultural societies.

Bark Splitting—Northwestern Greening—Holland Pippin.—H. S. G., Paradise, Nev. The splitting of the bark of your apple-trees is probably due to some sudden climatic change. It may, however, come from sun-scald. The cracks should be covered with grafting-wax or clay, to keep out rain and prevent drying of the wood. If the trunks of your trees are not shaded on the south side, you had better at once wrap them with bagging, corn stalks or other material. This will prevent sun-scald and is a great help to trees in exposed locations. The Northwestern Greening is a large winter apple of very good quality. It is a Wisconsin seedling, and I regard it as one of the best newly-introduced hardy seedlings. The Holland Pippin is a fall apple of moderately good flavor; very excellent for cooking use some time before it is ripe. I doubt, however, about its being a desirable kind for your section.

Figs.—J. M. H., Portsmouth, Va., writes: "Could figs be shipped from here to northern cities at a profit? What are they worth? The

fruit is very perishable. Would you plant on land that until recently was under water?"

REPLY:—Southern fresh figs are occasionally offered in northern markets. I do not know about the price they bring, but am confident it is pretty high for fruit in good condition. With proper care as to varieties and in shipping, they could probably be sold at a profit. It would be somewhat unsafe to plant on land that has until recently been under water. Such land is safe if it is broken up a year before planting. You had better correspond with commission firms in New York, Philadelphia and Boston as to the demand for fresh figs.

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Our Farm.

OHIO STATE HORTICULTURAL SOCIETY.

(Continued from last issue.)

PROF. F. M. WEBSTER, of the Ohio experiment station, read an interesting account of the year's investigation in matters concerning the insect life in Ohio during the year. I can only give some extracts.

"The clover-root borer, *Hylesinus trifolii* Muell, was received from Summit county, burrowing into pea-vines close to the surface of the ground, seeming to injure the Telephone and Bliss' Abundance worse than others. The land had not been devoted to clover in four years. Plants sent by Mr. Austin A. Knapp, of Richfield, June 26th, contained beetles in the roots. The pest does not confine itself wholly to clover, and we may find that its food plants comprise other of the *leguminosae*.

"Another grape pest, and one with which you are too familiar, is the rose-chaffer, *Macrodactylus subspinosus* Fab. I do not mention this in order to add anything new to its history or any measures of prevention or destruction, but to lay before you a plan, if possible, for fighting the pest in its breeding-grounds. These are known to be in sandy grass or wood lands, and we have the life history sufficiently and clearly understood to enable us to know just where and in what stages of development they are at certain seasons of the year. I believe this insect to breed in small areas in great numbers, and it does seem to me that it would be possible to ascertain the location of such and fight the pest in its haunts, before it has emerged from the ground and become diffused throughout the neighborhood. It has been demonstrated that an application of kerosene emulsion, followed by a sprinkling of the sprayed surface with water, or by a moderate rainfall, will destroy other allied species while in the larval stage.

"The French also use a capsule which contains bisulphide of carbon. This capsule is placed in the sod, and the action of the moisture will dissolve it, thereby liberating the contents in the earth. In this way the fumes of this insecticide, which we know to be death to all insect life within its reach, would be applied underneath the surface and do its work. I have never used these myself, and it may be impracticable to do so, but the longer I study this pest, the more I am impressed with the idea of striking at the root of the trouble. In fact, there does not appear to be anything else to do, as all measures that have as yet been evolved by the ingenuity of man have failed to materially benefit the grape grower.

"I am confident that the experiment station authorities would permit me to spend a large portion of my time for one or two seasons for the purpose of carrying on a series of investigations, with a view to destroying these pests in the manner indicated. Our funds are, however, too limited at present to carry the expense of the project, and I would call your attention to the propriety of the society at this meeting taking some action looking to the passage of a bill this winter by our state legislature, providing a sum of \$600 or \$800 to cover traveling and other expenses in carrying out these investigations. If your action in this matter receives the prompt support of local societies and fruit growers in the affected part of the state, it seems as though the measure could be carried through the legislature without serious opposition. If it is found practicable to destroy the pest in this manner, the grape growers of a neighborhood can combine, and thus reduce the cost of the application.

"The harlequin cabbage-bug, *Murgantia histrionica* Hahan, is one of the coming pests of the cabbage grower of southern Ohio, though I do not expect it to reach the northern part of the state. This pest is a native of Texas, and first came to notice as a cabbage insect about twenty-six years ago, since which time it has gradually been moving northward. It crossed the Ohio river into Indiana in 1890, and there is a specimen in the experiment station collection, collected in Warren county in 1885, showing that it had at that time worked its way some distance north from the locality where it at first gained a foothold in the state—probably from Cincinnati. This is allied to the squash-bug, and equally difficult to manage. It seems absolutely proof against all insecticides, including kerosene emulsion of ordinary strength. Its color is orange and black; it takes its name harlequin from the arrangement of these colors.

"In the South this insect passes the winter in the adult stage, and this is probably true of it at the North, as I have received pupae from southern Indiana in October. They hide away among rubbish and debris of the field in the fall and thus find protection from the winter weather, appearing in the spring to multiply and feed not only on cabbage, but other cruciferae. Piling up the refuse of cabbage-fields, thereby offering hiding-places, and burning them in winter, is one of the methods of destroying the pest.

"Mr. H. E. Weed, of the Mississippi experiment station, has found that by growing early mustard or radish and turnips from old roots, a bait is thus produced which will attract the bugs early in the season. These plants can be sprayed early in the season with kerosene emulsion strong enough to kill the insects, although it of course kills the plants. I do not look for serious trouble from this pest north of Columbus, or latitude 40 degrees north.

"The cabbage Plusia, *Plusia brassicae*

Riley, is coming to be a greenhouse pest, causing considerable injury to winter-growing lettuce. The larva appears to be as fond of the tender growing hothouse plants as they are of the leaves of cabbage. It has caused some trouble in this direction in the station greenhouses, and besides, I have received it from other portions of the state, accompanied by similar complaints. Pyrethrum can be used on cabbage or lettuce with perfect safety, and it will destroy these larvae.

"These are a few of the insects that have claimed my attention during the year. There are some others I have noticed, and they will be treated of in the station publications. There are some things, however, connected with your business which you do not see, or seeing, do not heed.

"Wherever I go over the state I see old orchards reduced to a very few old and misshapen trees, standing alone in the fields, marking, in many instances, sites of the homes of the sturdy pioneers. The home has disappeared, or is marked only by a shallow depression in the earth or a few scattered bricks embedded in the soil, one chapter of life's story, while the other may perhaps be found in the church-yard, whither have gone the busy hands that have planted these orchards. I can well understand the feelings of reverence which may cluster around about these fragmentary testimonials of the days of old lang syne, and would not for a moment change these feelings if I could. But with the attention that most of these old trees receive, it were better if they, too, were like the hands that planted them—reverenced only in memory. Producing but little fruit, and this necessarily of an inferior quality, they stand a perpetual menace to the orchards in their vicinity, sending out year after year myriads of codling-moths, borers, bark-lice and other fruit pests, for the propagation of which they prove a veritable nursery. I do not say cut down all of these old trees. I would not do it myself; but I would see to it that the codling-moth, borers, bark-lice and apple-seab were not allowed to hold high carnival among their branches. Try the pruning-knife and spraying-machine on the best of these trees, and mayhap you will astonish the palate of the gray-haired grandsire who still remains, with such a tempting feast as will bring back memories of half a century ago. Do this, or else (peace be to their ashes) cut them down and remove them.

"I wonder if the country horticulturist ever stops to consider what an important factor country fences may be in the problem of success in his calling. Can you compute the number of raspberry sawflies, cane-borers, root-borers or leaf-rollers each half mile of old worm rail fence, with its wide margin of brambles on each side, will produce and send out over the surrounding country? What clouds of rust and fungus spores are carried away over miles of country by the winds? Growing up alongside of these fences are many trees of the wild cherry, and now that the leaves are off, there is hardly one of these that is not decorated with the abandoned webs of the tent caterpillar and fall web-worm. Do you suppose these will all remain where they originated? Not a bit of it; they will crawl or fly forth in every direction to found new colonies. Why not? There is not a hand turned against them. I confess when I see these things I am not surprised that the country is overrun with insect and fungus pests. The only wonder is that they are not even worse than they are, and but for their natural enemies, the unseen influences which you know not of, you would have far more trouble than at present. Insecticides and fungicides are all well enough and essential, but how much might be accomplished without them, and by clearing up the fence and hedge rows and roadsides and similar neglected places. Surely, the ax may go with the spraying-machine, and I sometimes think it might take the lead."

L. B. PIERCE.

(Concluded in next issue.)

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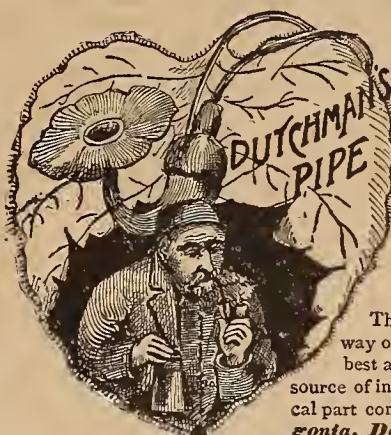
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Our Farm.

THE POULTRY YARD.

Conducted by P. H. Jacobs, Hammononton, New Jersey.

DUCKS AT THIS SEASON.

THIS is the time when the ducks should begin to lay. They usually deposit their eggs early in the morning, and average about five eggs each week. Six females with one male is about the correct proportion of each sex. They prefer soft food, which should consist of equal parts of ground oats, bran and ground meat. Ground boue is also excellent. Ducks require quite an amount of animal food after they begin to lay, as their eggs are much larger than those of hens, and they lay more of them while they are at the work of egg production. They also require bulky food, and are partial to scalded clover that has been cut very fine, and boiled potatoes or turnips are dainty foods for them. The main point is to give them animal food, hence the ground meat (or fresh meat, if preferred) should never be omitted.

Of the breeds, the Pekin is mostly preferred, not that they are superior to the other breeds in all respects, but because the Pekin is better contented without a pond, or when confined. It is pure white in color, and its feathers have a value in the market. If it is desirable to make a cross on the Pekins with some other breed, the Aylesburys are best, as they are white, and are also good layers.

Those who keep the common puddle ducks will be surprised at the difference between them and the Pekin, if a comparison is made. The Pekin grows so rapidly that it is not an unusual sight to witness the weight of five pounds each when they are nine or ten weeks old, and they make plump carcasses.

Ducks require warm houses, and the floor should be always covered with straw, as dampness in their sleeping-quarters is very injurious. They lay more eggs than hens during the year, averaging from one hundred to one hundred and forty eggs per year, according to the mode of management. They are subject to but few diseases, and after the first two weeks the ducklings thrive well on all kinds of food.

ROUP.

The roup is the disease that causes so many drawbacks in the winter. A flock will have the roup and show no symptoms other than to droop, or refuse to eat. It is a name given to many diseases due to colds. Choking, with gasping for breath, discharge from the nostrils, a seeming effort to get rid of some obstruction in the throat, swelled eyes, blindness, and sometimes a yellowish substance covering the throat, are all symptoms of roup, as the disease attacks the fowl in many different ways. It is sometimes useless to attempt a cure, as efforts in that direction may extend over weeks of time, and the care and labor bestowed is more than the value of the fowl. As all medicines must be given in the food, or in the water, the sick fowls may not partake of the remedies, and when giving remedies by handling a flock of sick fowls the work is very laborious and disagreeable. We know of no remedy that is a sure cure for roup. Keeping the birds warm, and adding a tablespoonful of chlorate of potash to each quart of drinking-water, for a few days, is beneficial, but total destruction of the flock at once is better.

THE BREEDING TURKEYS.

New blood shows more improvement with turkeys than with any other kind of poultry. The best foundation is the common flocks. Discard all the males and procure a gobbler of some pure breed, and the next year let the gobbler be procured from some flock different from the first. A surer plan is to use a gobbler of one breed the first year, and one of a different breed the next. As to which is the best breed of turkeys, we doubt if any breed can be said to excel the others. The Bronze turkey is the largest, but the point to observe is to secure hardiness and vigor, without regard to size, and this must be done by selecting the best hens and procuring a vigorous male each year.

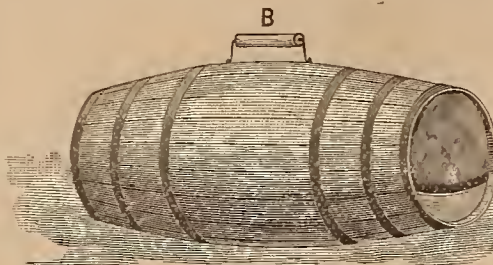
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COLD WEATHER FEEDING.

Never allow the hens to be idle in the winter if it can be avoided. The best way to keep them warm is to make them work. They will not scratch and keep their blood circulating if they are permitted to fill their crops full of food and then quietly rest until the food is digested. During cold weather the hens should have warm water to drink early in the morning, and a small allowance of warm, soft food, and they should then be made to scratch for the remainder of their breakfast, which may consist of wheat, oats, cracked corn, or any other grain, that has been scattered in litter. A layer of cut straw on the floor of the poultry-house, in which the hens are compelled to seek the greater share of their food, is the best and surest way to induce them to lay. If they do not scratch they become too fat, and if fat they will not lay.

Never feed the hens at noon, and it is better to have them a little hungry after



A KEG DRINKING-FOUNTAIN.

their morning meal than to allow them a full meal. Meat and bone should be given at least twice a week, as a change from the regular grain diet.

SELECTING MALES.

A male of medium size should be preferred to one that is heavy and clumsy. Most persons pay too much attention to the size. They overlook the fact that the larger the birds the longer the period required for reaching maturity. Provided the male selected is pure-bred, it is an advantage if he is rather small than large where the object is to hatch out pullets that are desired to mature early. In selecting the male, let it be done with some object in view, and which is to be accomplished. It is of no advantage to accept one as a gift if he is not suitable for the purpose. Bear in mind, also, that the male, so far as his influence is concerned, is one half of the flock.

WORKING IN THE MANURE HEAP.

If the hens can have access to the manure heap, we know of nothing that will be of greater advantage to them. They secure many morsels of food that would be otherwise of no value, and they take exercise in scratching. The real secret of egg-laying in winter, as we have stated frequently, is the exercise, and for this purpose the manure heap answers admirably. It must not be overlooked, also, that the hens will perform good service in assisting to make the manure finer. The best way to prepare manure for a garden is to turn the hens on the heap.

CRUDE PETROLEUM ON ROOSTS.

Crude petroleum should be applied to the roosts occasionally, in order to guard against lice. During the few warm days that are liable to occur in winter, with the animal heat of the bodies of the hens, the house will sometimes be warm enough to enable lice to work. Kerosene is irritating to the feet of the fowls, and for that reason we suggest the use of crude petroleum instead.

WARM NESTS IN WINTER.

It will be a difficult matter to prevent freezing of the eggs in the nests at this season, even with the best of care and frequent collections, but this difficulty is increased if the nests are not warm. They should be in the most secluded location, made of boards that are tight and close, and should also be kept well filled with hay or litter.

TRY THE SHOWS.

There will be poultry shows in nearly every state during the winter, and it will pay to visit them, in order to compare the different breeds that will be on exhibition. Also, do not be afraid to exhibit if you believe your birds are good. Much valuable information can be obtained by taking an interest in the poultry shows.

ENSILAGE FOR POULTRY.

The fowls will eat ensilage in winter as well as do the cows. They may not consume the coarse portions, but they will pick off the leaves, and find quite a variety in so doing. The hens desire succulent and bulky food, as a change from the dry grain, while geese and ducks will eat the ensilage greedily.

VARIETY AND RESULTS.

In England, quite a variety of food is allowed, and the hens over there lay more eggs than the hens here, on the average. Barley, oats, rice, carrots, cabbage leaves and cooked foods from wastes are allowed. Wheat and corn are also given, but principally to the hens for market. Laying hens receive meat and bones, and milk is added to any ground grain that may be fed. The hens that are selected for laying are not expected to be of much value for the market, as there are special market breeds which are not, however, equal to other breeds as layers.

A KEG DRINKING-FOUNTAIN.

A drinking-fountain that will hold a large quantity of water may be made of a water-tight keg, such as a paint-keg that has been well cleaned out. The design is explained in the illustration, A being a tin or zinc monthpiece, on a line with the top of which (or half an inch below the line) is a hole, one inch in diameter, bored into the head of the keg. The keg is also filled with water at this hole, by standing the keg on end. B is a handle, for conveniently lifting the keg, in order to carry it from one location to another, and it may be made of wire, hoop iron, leather or rope. The keg is supported on two short legs, or pegs, which are placed near the ends. This fountain should not cost over fifty cents, and will hold a supply of water for a large flock.

CORRESPONDENCE.

PROPER CARE OF CANARIES.—The best food for canaries is mixed seed, with plenty of fine gravel strewn on the bottom of the cage and renewed daily. A cuttle-bone should always be kept in the cage, and also a bird-manna. A bit of chickweed, a slice of apple and a ripe fig may be given occasionally, but only as a treat and not oftener than once a week. Never give them sugar, cake or other dainties. It makes them too fat, spoils their voice and causes them to get out of song. A bath should be given every day, if they will take one. In cold weather the chill should be taken off the water. Hang the cage where no draft can strike it; canaries can stand almost any degree of cold, but a draft is fatal. When they are moulting (shedding feathers), if it is desired to have them continue singing, feed them twice a week on nourishing food, such as hard-boiled eggs, in addition to their seed diet, and keep a bird-manna constantly in the cage. They cease singing in the fall, from weakness caused by the growth of new feathers, and the foods mentioned above strengthen them so much that they continue in song often after they have lost nearly all their plumage.

Newport, R. I.

C. S.

INQUIRIES.

Plymouth Rocks.—E. S., Bedford, Pa., asks: "How many varieties of Plymouth Rocks are in existence, and is there any difference between them?"

REPLY:—There are only two recognized varieties—the white and the barred. There is no difference except in the color of the plumage.

Turkeys.—S. G. L., Canton, Ohio, asks: "What is the cause of the lameness of my turkeys? They seem to have sore feet, and stagger when they are walking."

REPLY:—It is probably due to frozen toes, the result of exposure while roosting on the limbs. Jumping off the trees to the ground also causes the difficulty.

Crossing for Table Fowls.—M. S., Standish, Mo., asks: "What kind of males would be best for crossing, in order to produce choice table fowls, and also to produce good layers?"

REPLY:—The best table fowls and the best

layers cannot be combined in one breed. To produce choice table fowls use males of the Dorking, Game or Houdan breeds. To produce good layers the Brown Leghorns or Hamburgs are more suitable.

Ducks as Layers.—N. S. B., Somerset, Ky., asks: "What is the laying capacity of ducks for one year, and at what seasons do they lay their eggs?"

REPLY:—A Pekin duck has been known to lay as many as two hundred eggs in one year, but the average number is about one hundred and twenty, some exceeding that number, while others do not reach it. The first six months of the year is when the largest number of eggs is laid, March being the best month.

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Queries.

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Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Queries desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Growing Early Vegetable-plants.—Mrs. C. G. W., Missouri, asks: "When should tomato, onion and cabbage seed and sweet potatoes be planted under glass for early market gardening?"

REPLY BY JOSEPH:—We start tomatoes, cabbages and onions in February and March, in greenhouses or hotbeds, and sweet potatoes in April. Onion and cabbage plants should be ready just as soon as we can get the ground in order in spring, tomatoes by May 20th, and sweet potatoes by June 1st.

Late Cauliflowers.—W. M., Yorkville, Ont., asks: "Last fall I raised one thousand five hundred Veitch's Autumn Giant cauliflower, which were caught by frost. During the next warm spell we set them in a trench two feet deep, with soil left on roots; but frost came again before we had quite finished, the temperature going down to zero. Will the plants be of any use in spring? Can I do anything to save them?"

REPLY BY JOSEPH:—The only thing anybody could do under the circumstances is to wait patiently until spring. If the plants come out all right, which I greatly doubt, you will know what use to make of them. I grow only early varieties, such as Snowball, Early Erfurt, etc., and use them both for early and late planting.

Onions by Acres.—N. S., Illinois, asks: "How many onion-plants, set four by eight inches, will it take for five acres? How many pounds of extra good seed will be required?"

REPLY BY JOSEPH:—It will take nearly 180,000 plants for one acre if set three inches apart in rows twelve inches apart. This is a much better way than to make the rows eight inches apart and set the plants four inches apart. The latter way would require almost 200,000 plants for each acre, or one million plants for five. Ordinary varieties I would set still closer. About eight pounds of good seed would be enough to raise the plants. But, really, don't attempt to plant so many onions. Most likely you will regret it. It is a big undertaking, and you should understand all about it, and know exactly what you are about before you even plant one acre in this way. To go slow, is my advice.

Muck from Pond.—Mrs. K. H. T., Virginia, asks: "How should I treat muck from a pond bottom? It consists mostly of rotten leaves rotted to a muck. When dry, it is very light. I want to use it under peanuts next spring. Would lime or hard wood ashes or stable manure be best to use with this muck?"

REPLY BY JOSEPH:—This pond muck is rich in nitrogen, and probably also has a small percentage of mineral plant-foods. When dry, it will be a most excellent material to use as absorbent and bedding in the stables. Put it a foot deep over the stable floors, with a small quantity of straw bedding on top. You can also convert it into a good fertilizer by composting with wood ashes, or with ordinary stable manure. If you add about two hundred pounds of unleached wood ashes (say five bushels), and fifteen to twenty-five pounds of bones (dissolved are best) to one ton of muck, the resulting compost will be equal in value to an unusually fine quality of stable manure.

Early Cabbage and Tomato Plants.—"Champaign," Ill., asks: "How much space of hotbed does it take to the thousand of very early cabbage-plants? I want to raise five thousand cabbage-plants for my own use, and a few more, and I don't want to buy glass for any more than I need, and still I want to be sure and have enough. Does it take much more space for tomato-plants? I want to raise ten or fifteen thousand tomato-plants, but they will be later and I can raise them under canvas."

REPLY BY JOSEPH:—If you want to raise very early cabbage-plants, you have little time to lose. You should sow seed early, grow the plants slowly, and have them well hardened off by the time that the ground outside can be prepared. To give an early crop, they must go out as early as is at all practicable, and long before the average gardener would consider it safe. You can grow about six hundred good plants under one ordinary good sash. Tomato-plants, to give an early crop, will need much more hotbed space. I usually put only about one hundred and fifty plants to the sash.

Rhubarb and Its Use.—W. T., Wisconsin, asks: "Please give recipes for making rhubarb jelly, sauce, shortcake, and the mode of canning. Are the late varieties best for forcing in greenhouses? How many varieties of rhubarb have been grown? What is the color, size and habits of the strawberry and Linnaeus varieties? How much earlier is the Linnaeus than Victoria?"

REPLY BY JOSEPH:—American seedmen usually catalogue only two varieties; namely, (Myatt's) Linnaeus and (Myatt's) Victoria. The former has smaller stalks and leaves than the latter, but is fit to use a few days earlier than the other, and may be preferable for forcing. Victoria has thick stalks and large, broad leaves, and is especially prized for main outdoor crop. Plants grown from seed vary considerably, and there are consequently a large number of varieties. To distinguish them will require greater experience than I possess. Use the peeled stalk as you would any other acid fruit. A palatable sauce is made by simply stewing them in a little water and adding sugar. To put up rhubarb for winter use, simply peel the stalks, cut them in small pieces, and put in cans in cold water, sealing tightly.

Celery Rust.—D. S. U., Thisbe, Pa., asks: "What causes celery to rust, and is there any way to prevent it? Is there any variety exempt from the disease?"

REPLY BY JOSEPH:—There are several blights, a true rust, and a bacterial disease which attack celery. The one referred to is probably a leaf-blight. It is caused by a fungus which feeds on the tissues of the leaf and destroys them. Hot and dry weather seems to be favorable to the development and spread of the disease. I have tried all sorts of fungicides, among them those recommended by stations and the United States department of agriculture, without being able to control the blight. In the first place, we should try to get plants from a perfectly healthy lot. When blight has once appeared in a plant-bed, it is not safe to use any plants from there for planting in open field. They will most likely carry infection to the patch. Even irrigation is neither a preventive nor a remedy. Shading the plants during hot weather in some way will probably be of some service and protec-

tion. Still, the blight continues to work just as long as the celery is outdoors, and even after it is put in the trenches or celery-houses or pits. Possibly spraying with the Bordeaux mixture may do some good; but I would advise the use of seed from healthy plants, and of plants from a perfectly healthy lot, and of land that had never been invaded by the disease, or still better, of land that has had no celery on it for some years. I do not know of any variety that is exempt from the disease; but among those especially subject to it are White Plume and Golden Self-blanching.

Stable Manure, Fresh and Composted.—J. H. B. & Sons, Nebraska, ask: "What is the comparative value of fresh stable manure (horse and cow), ton for ton, and manure that has been left in piles until it has become rotted? What is the best time of the year to apply it? At this time of year we can have manure hauled and spread for forty cents per ton, and as we are almost the only people in this country who use manure in any quantity, we can usually get either kind. What is the value of the bones from the slaughter-houses after the fat has been tried out?"

REPLY BY JOSEPH:—If the manure has been exposed to the weather, especially to heavy rains, for some time, some of the plant-food elements have undoubtedly been leached out, and a ton of it may contain less plant-food than a ton of fresh manure. In most cases the difference will be slight, and as the rotted manure presents its plant-foods in far more readily available form than the fresh manure, I would prefer the rotted to the fresh manure, especially for garden crops. Winter is a good time to haul manure. You can spread even the fresh article on the soil now, without fear or much loss. By all means keep your teams hauling manure, fresh or rotted, whatever you can get most handily. You get it cheap enough. Bones from slaughter-houses contain perhaps \$25 worth of plant-foods per ton, but you cannot easily get them in available form unless you have special facilities for crushing or dissolving the bones. Perhaps you might compost them with fermenting horse manure.

VETERINARY.

%Conducted by Dr. H. J. Detmers.%

Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to Dr. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Ringworm.—M. L., Cooperstown, Pa. What you describe is ringworm. Please consult the last issue of this paper.

Actinomyces.—J. E. D., Meadville, Pa. What you describe appears to be actinomyces. Please consult answer to inquiry under the same heading in this present issue.

Thirty Drops of Aconite.—P. A. S., Festus, Mo. Thirty drops of aconite is not an overdose for a horse, when indicated, but there is hardly any medicine which, without being indicated, is more indiscriminately used than aconite.

Colic.—L. B. B., Coats, Kan. Your colt had colic, but whether the same died of that disease or whether it died because medicines (oil) were poured down the trachea into the lungs cannot be definitely determined from your description.

Wants to Thicken His Horse's Mane.—M. S., Poland, Ohio. If you keep your horse's mane and skin clean and free from dirt, filth and parasites, and otherwise bestow good care upon the animal, a further falling out of the mane may be prevented. Destroyed roots of the hair cannot be restored.

Period of Gestation in a Mare.—W. D., Dyringer, N. Y. The average duration is 340 to 350 days. The shortest time on record seems to be 307 days, and the longest 420 days. Male colts are usually carried a few days longer than females, and the gestation is usually the shortest when twins are born. The age of the mare also seems to make some difference.

Snorting—Bog-spavin.—S. G. P., New Harrisburg, Ohio. If your horse snorts, and at the same time has discharges from the nose, there is probably some obstacle in one of the nasal cavities or somewhere else in the respiratory passages. I therefore have to advise you to have the horse examined by a competent veterinarian. In regard to the bog-spavin, I have to refer you to the last number of this paper.

May be Tuberculosis.—G. H. D., Shawnee, Kan., writes: "I have a four-year-old steer that I am trying to fatten. I feed him on sound corn and good timothy hay, and he has plenty of good water to drink. He eats heartily, but he does not gain any flesh. He has a dry cough."

ANSWER:—Your steer may have tuberculosis. If he has, there is no cure, neither will the meat be fit for human food. If you want certainty, have the same examined by a competent veterinarian, or if none is available, by your family physician.

Diarrhea in Calves.—J. L. G., Nelsonville, Ohio. As a good remedy against diarrhea in young calves, say a couple of weeks old, may be considered the following: Powdered opium, 10 grains; carbonate of magnesia, 40 grains; powdered rhubarb, 30 grains; the whole to be divided into two equal parts, and one to be given in the evening and the other in the morning, or vice versa, mixed with three or four ounces of chamomile tea. It is best, though, to prevent the diarrhea by not feeding soured milk, by not exposing young calves to draft, and not keeping them in damp, dark, unclean and ill-ventilated, underground stables.

Probably a So-called Malignant Wart.—C. J. O'H., Hollywood, Ala. What you describe may be a so-called malignant wart. If it is, the following treatment, if applied carefully, will effect a cure: First, let a druggist prepare for you the following mixture: Two drams of pure arsenious acid, one dram of caustic potash, one and one half drams of gum acacia and half an ounce of water. This should be thoroughly mixed, put in a salt-mouthed vial and be labeled "poison." Then take a wooden spatulum and with it apply a coat of the above mixture to the raw surface of the wart, but to nothing else, and this done, put a tuft of cotton on top of it, and to prevent the horse meddling with your application, cover the whole with a bandage, but be careful to get the exceedingly poisonous mixture in contact with nothing else but the raw surface of the "wart." One application is enough.

Lost a Horn.—D. S. U., Thisbe, Pa., writes: "I have a cow that got her horn pulled off in fighting, leaving the pith exposed. What can I do for it?"

ANSWER:—Wash the process of the horn—the "pith"—with a five-per-cent solution of carbolic acid, then cover the same with a clean muslin bandage, which can be easily applied and be kept in place if the other horn is made use of in its application. This done, give the bandage a coat of coal-tar.

Garget in a Mare—Smut.—S. S. Y., Larissa, Neb. What you describe appears to be a chronic inflammation, or garget, in the mammary glands of a mare, but your description is too indefinite to enable me to form any idea as to the present condition. It will therefore be best to have the mare examined by a competent man—if possible a veterinarian—and then have her treated in conformity with the result of the examination.—Smut, if consumed by domestic animals in considerable quantities, is very injurious.

Contraction of the Flexor Tendons.—J. B., Ozeau, Va., writes: "Within the last month my colt, eighteen months old, is inclined to walk on his toes. He is well formed, active and fat. What can be done to cause him to walk right?—Can anything be done for a club-foot horse four years old?"

ANSWER:—If the contraction is merely a contraction of the flexor tendons, and not in any way caused by or connected with a bone disease (ringbone, for instance), the remedy consists in a surgical operation—a subcutaneous cutting of the contracted tendon or tendons; which, however, can be performed only on one leg at a time, and requires for its performance a well-qualified surgeon. If the contraction is caused by diseased bones, the colt is an incurable cripple.—Whether or not anything can be done for a "club-foot" depends upon whether the causes can be removed. If the same consists in a contracted tendon or tendons, and the horse is otherwise a good one, the same surgical operation mentioned above may effect an improvement, provided the hoof is first put into proper shape by a good blacksmith.

Warts.—M. E. D., Dacey, Idaho, writes: "We have a gentle saddle-horse that has what people call warts (hard, scabby sores) around his mouth. It is impossible to use a bridle on him without making him bleed. The inclosed recipe was given to me to use on it to take them away. Would you use it, or what would you advise?"

ANSWER:—The combination of the six different ingredients is a very irrational one, and if used in a case like yours, the effect of the remedy might prove worse than the disease. I published in a recent number of this paper a treatment for nearly all kinds of warts. Maybe what you complain of is simply a callous sore, originally caused by a rather severe use of the bit in a tender mouth. If such is the case, you may treat it with frequent applications of creoline, or of boric acid, or with anything else that is sufficiently antiseptic and is not poisonous, and then, of course, not use any bridle until a healing has been effected.

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Diarrhea in Cattle.—J. T., Hope, Idaho, writes: "What is the best remedy for the scours in cattle? Some of my cattle are badly bothered with it, while others that are getting the same feed are all right."

ANSWER:—Diarrhea in cattle, in a great many cases at least, is merely a symptom of another disease, usually of an anemic or cachectic character. Your communication does not convey any idea what that disease may be, and consequently does not furnish any clue as to the immediate cause. The only advice, therefore, I can give you is to improve the food of your cattle, and thus their general condition. Still, if the diarrhea or "bad scours" is the result of the last stage of a cachectic or anemic disease, nothing whatever will stop it or effect a cure.

Actinomycosis.—C. L. T., Kelloggsville, N. Y., writes: "A farrow cow, six years old next spring, had a lump form on right side of face last summer. The lump was hard and did not seem to be sore. It has gradually grown larger, until now it covers a place as large as a man's hand, and projects from face about two inches. There is no inflammation. It is quite hard and very sore. It has broken in two places, but does not discharge."

ANSWER:—What you describe seems to be actinomycosis, a disease of which the treatment has been repeatedly described in these columns. As it cannot be given in a few words, and as space, or want of it, will not allow us to publish a lengthy article every month or two on the same subject, I have to refer you to Nos. 3, 5, 8, 14, 20 and 23 of the last volume of FARM AND FIRESIDE, or to Bulletin No. 3, volume III, second series, of the Ohio agricultural experiment station, now at Wooster.

Insufficient Appetite.—J. L. P., Montgomery's Ferry, Pa., writes: "I bought a mare last November, that was very poor, from the fact that she was highly recommended to me, with the expectation of feeding her up, but have failed because the mare will not eat enough. She scarcely eats enough to keep her alive. Her coat is very rough, her hair stands straight out and her hide seems very tight. She passes some worms—small worms. She has lots of life. Have fed her oats, corn, bran, good hay and chopped feed. The latter feed she seems to eat better than the rest."

ANSWER:—Maybe you are right, that your mare suffers from (chronic) indigestion, and it may also be that the same is infested with worms in sufficient numbers to cause the indigestion. It is also possible that, independent of the presence of the worms, some organic changes are existing somewhere in the digestive apparatus, which cause the want of appetite and the poor condition. The fact, however, that the mare prefers chopped (and soft) food, or food that does not require much mastication, it seems to me, makes it advisable to make a thorough examination of her molar teeth. It is possible that one or a few diseased or decayed teeth are at the bottom of the whole trouble. If such is the case, have the diseased molars extracted, or if one or more should be found wanting, and the opposite ones have grown very long and into the sockets of the former, have those that are too long shortened. Call in a qualified veterinarian to examine the animal's mouth and to perform the necessary operations. If the mouth proves to be all right, and you do not want to call on a veterinarian to examine and to treat your animal on account of the digestive trouble, keep her up the best you can with such food as she prefers to eat until spring and then turn her out to grass. Don't give her any physic if she is weak and emaciated.

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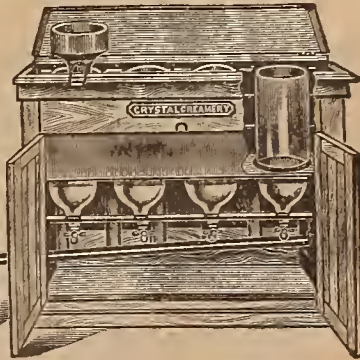
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MY SWEETHEART'S FACE.

My kingdom is my sweetheart's face,
And these the boundaries I trace.
Northward her forehead fair;
Beyond, a wilderness of auburn hair,
A rosy cheek to east and west;
Her little mouth
The sunny south—
It is the south that I love best.

Her eyes, two crystal lakes,
Rippling with light,
Caught from the sun by day,
The stars by night.
The dimples in
Her cheeks and chin
Are snares which Love hath set,
And I have fallen in!
—John Allen Wyeth, in *Harper's Magazine*.

His Sister's Lover.

CHAPTER V.

LIVING IT DOWN.

WHEN Laurie left the steamer, as soon after arriving at port as was possible, he went down the gang-plank alone, and without a kindly word to follow him.

On every hand he heard those who had become acquainted on shipboard bidding their newly-made friends "God-speed," or arranging for another meeting; but no person had other than averted glances for him.

Ruth Clayton, the girl whom he had dreamed would walk down the path of life with her hand in his, disappeared from the deck instantly he came out of the saloon, as she had ever done since the morning it was learned Clark Ogden was no longer numbered among the passengers of the Adriatic.

The remark made by the gossip in the smoking-room had been sufficient to arouse the suspicious of all, and these, in a few hours, became almost certainties.

It is true, there was no proof against the man who had come on board the happiest of human beings, therefore no charges could be preferred against him; but his singular behavior on that particular morning, his evident dislike to converse on the subject of the tragedy, and the sudden and unaccountable coldness which had sprung up between himself and his fiancée, were all sufficient to bring into bold relief an alleged mark of Cain upon his brow.

Every person, even the stewards, who might have been supposed to smother their feelings in order to earn the fee which is looked upon as their right, shunned him, and when the steamer was within three or four days of the American coast he shut himself in his room, eating no more than was necessary to barely preserve life, but drinking deep draughts from the brandy bottle.

From the moment he stepped on the pier at New York, Winfield Laurie disappeared from the view of all who knew him as entirely as had his victim.

At the clubs the news of the tragedy was told, as a matter of course, and those who had previously called themselves Laurie's best friends, decided he had "at last found courage enough to drown or shoot himself, as he should have done the night poor Ogden was made way with."

Smoke Creek desert is known to prospectors and Indians as a "mighty unlikely bit of ground," and while very few make an attempt to cross it, unless through ignorance, or the venture be absolutely imperative, there are many who have wandered upon its sands, only to leave their bones in the arid waste.

If one, from business pursuits, a wish to grow rich suddenly, or the desire to penetrate difficult and dangerous portions of the country, has traveled into the northwest portion of the state of Nevada, he will find that by crossing the desert a long and weary detour can be avoided, if his course lays toward the South.

As against the known perils which await the traveler on those burning sands, is the testimony of those who have crossed and re-crossed them in safety, and he who stands hesitating as to whether the "longest way around is really the nearest way home," always takes this evidence as proof that the dangers of the journey have been exaggerated.

So it was with a tall, well-built young man whose broad shoulders bespoke strength, who stood at the last halting-place on the edge of the desert questioning if it would be worth the additional miles of travel to shun this spot.

"It doesn't seem possible a man could fail to make the trip in safety," he said to himself as he looked out over the shimmering sands. "One should be able to keep the direction in mind, whatever may happen, and if the worst comes it will be but the ending of that which I do not desire. We'll push across."

A broncho, behind whose saddle was rolled a

heavy blanket which seemed out of place in that burning atmosphere, had already been made ready for the day's journey, while standing near by was a long-eared burro laden with camp equipage and provisions.

To mount the one and urge the other forward was but the work of a moment after the course had been decided upon, and the dangerous march was begun.

One water-hole, he had been told, could be found fifteen miles from the western camping-place, and to this it was the traveler's purpose to make his way.

In so doing the journey would be broken by a safe halt, and then both man and animals should be able to make the remainder of the stretch.

Only fifteen miles! Two hours' ride under ordinary conditions; but yet the minutes lengthened until the sun was in the zenith before the distance had been traversed.

Over the hot sand the animals moved at the slowest pace, with heads hanging low and tongues lolling out, each breath painful because of the particles of dust which filled the lungs.

Then came the blessed relief of being able to quench the raging thirst, for the water in the canteens was so hot as to be almost undrinkable, and the traveler gave himself up to such rest as might be found where there was nothing to shelter him from the rays of the sun save the shadows of his steeds.

As for the animals themselves, they appeared

"There it is!" he exclaimed suddenly, starting forward at a rapid pace. "It looks like a man, and if it isn't now it certainly was once."

A traveler overcome by privation, heat or exhaustion!

Regardless of the sun's sultry rays, the young man hurried forward.

It was a human being, as he could soon see.

A mere boy, hardly more than twenty years old, lying motionless with face upturned to the cruel sun.

By the time the would-be rescuer reached the sufferer's side and ascertained that life was not yet extinct, the clouds in the southern sky had increased in blackness and extent. Flanking columns, tawny and dense, rose rapidly. A long sheet of what might have been mistaken for purple flame, leaped from the earth, and shot with lightning speed across the long expanse of sand.

It was a curtain of dust, beyond which nothing was visible. In front of this frowning horizon quick flashes of light shone for an instant upon the gigantic spiral columns which sprang into the air as if by magic, and then, curling into fantastic forms, merged into denser masses of clouds.

Nothing of this did the traveler see, so intent was he upon ministering to the helpless boy, and not until rising to his feet with the intention of going back to the halting-place for water, was he aware of any unusual disturbance.

Then it was to see the animals, having

against which it was almost impossible to make any defense.

He realized that to stand still would be death, and yet could he make his way back to the water-hole, bearing in his arms the unconscious boy?

"It shall be done unless I perish in the attempt," he said, clasping his arms around the sufferer's body. "A life saved now may make partial atonement for one taken, and mine is of no value except it can be spent in saving him."

Pressing the boy's head down upon his shoulder in order to protect the face from the blistering sand, the elder man staggered forward with his burden.

The earth, the air and the heavens seemed combined to thwart him in his purpose.

His throat was parched; a fierce thirst assailed him. In those few moments the dust-laden air had choked his lungs until respiration was well nigh impossible.

His feet sank deep in the soft, shifting sand, while around and above him whirled the black, dense canopy which was as an impenetrable wall.

The muscles on the laboring man's limbs stood out like whip-cords. The veins rose black, stagnant under the white skin, and the blood throbbed as if it would burst from its vessels.

The water-hole was but a comparatively short distance away, and yet the gallant fellow was uncertain as to whether he was going toward or directly away from it.

When the veil of dust shut down he had turned again and again to protect his face from the cutting particles, until there was no longer any certainty as to the direction which should be pursued.

"I must keep straight on now," he said to himself, shutting his teeth hard, and striving to overcome the feeling of suffocation which weakened him each moment. "If it so be that this boy is to be saved, then I am on the right course; if it is willed he and I perish here together, then I am unable to prevent it. We will go on as we have begun, and may God have mercy on my soul if this is the final struggle!"

CHAPTER VI.

HER BROTHER.

The wind whistled and screeched, and the great sheets of sand broke in the struggling traveler's face, throwing impeding wreaths of dust around his feet until positive exertion was necessary in order to raise his limbs.

The noise was like the roar of a cyclone, or the howl of a tempest when forest kings fall before the blast.

The traveler was now hardly conscious.

Almost mechanically he pressed forward, holding as with a death clutch the lifeless figure in his arms, and carefully shielding the pale face from the stinging sand, with heroic disregard of his own suffering.

He staggers rather than walks; more slowly he toils on until one would say he was motionless, and then, the last effort made, the strength utterly exhausted, he falls upon the sand with his burden, and over both the dust-laden wind throws a winding sheet.

As he sinks lower and lower amid the sand, consciousness returns, and he dimly fancies a friendly hand is applying restoratives to his aching head.

Then, becoming more sensible of his surroundings, he realizes that some liquid is slowly creeping around the back of his neck, bringing strength with its cooling touch.

Now he understands what happened.

It was on the very border of the water-hole that he fell, and his head is resting upon the edge, which the sand has covered, but not to such an extent as to prevent the precious fluid from oozing through.

The thought revives both courage and strength. He rises painfully to his feet, and gropes around.

Within reach is water in abundance; but before quenching his own thirst, he rolls the lifeless boy to the very edge, deluging him with the cooling liquid.

Not until the young fellow's eyes open slowly does the stranger minister to his own necessities, and then the pleasure of that plunge after the burning shower!

Overhead the sand dances, leaps and swirls in columns; but here he can laugh at it, for the depression in the plain shelters him.

Half an hour later the boy has revived sufficiently to be curious.

"Where did you find me?" he asked.

"Over there a couple of hundred yards from here," is the reply as the stranger points in the direction from which he had just come. "If I had spied you five minutes later I reckon it would have been the last job for both of us."

"Did you bring me through those fearful clouds of sand?"

"There was no other way out of it. It was a question of dying or walking, and came very near being the former. If I hadn't fallen exactly where I did, we should both have



THE EARTH, THE AIR AND THE HEAVENS SEEMED COMBINED TO THWART HIM IN HIS PURPOSE.
"DO YOU WANT TO SEE HER PICTURE?"

animated only by a desire to leave the place after their thirst was quenched, for the scanty herbage in the vicinity of the water-hole had been cropped closely by previous visitors, and there was nothing to appease hunger.

"There's no use in straying," the traveler said as he forced his broncho to remain close at hand, by staking him out with a lariat. "I'm well aware this isn't the pleasantest place in the world; but not a step do we move from here until the sun has set. It is folly to make the attempt again before dark, and I was a fool to have left the other side when we did."

The steeds seemed strangely restive, even the burro making frantic efforts to move on, a fact which caused their owner no little surprise.

The first thought was that Indians were in the vicinity, although he never heard they were to be found in this place, and he rose to his feet, gazing long and earnestly in either direction.

Far away toward the South were what appeared to be low-lying clouds, which seemed to curtain the horizon; but nothing more.

The plain was evidently deserted, and yet the restive movements of the steeds increased rather than diminished.

"There must be something here which I haven't discovered," he muttered, searching with his eyes inch by inch of the yellow surface stretched out before him.

broken loose from the hastily and imperfectly fastened lariats, dashing across the desert in the direction from which they had just come.

To pursue them would be useless, even though there had been nothing to demand his attention in that particular spot, for they would have been out of sight before he could traverse a mile, and again, neither he nor they would be able to travel many moments longer.

The wind, which was coming from the direction of the curtain of dust, was shrieking and moaning, while the clouds rushed upon one another like devouring monsters, and the walls of sand, instinct with motion, whirled and circled and rose, only to fall again, coming each instant nearer and nearer those they would devour.

It was the sand-storm of Smoke Creek desert in all its fury, and the man who was trying to save another's life at the possible expense of his own, knew that every second was precious now.

"God help and forgive!" he cried, and the words had but just been uttered when the tempest was upon him.

It swept in blinding sheets over both, penetrating their ears and nostrils, and parching their lips with the burning particles.

Clothing was no defense against the subtle dust which cut to the skin like the thrusts of innumerable needles. Whichever way the traveler turned he was met by a whirlwind

found a grave here. How does it happen that you are in this place?"

"I came from New York on a hunting trip, with two friends. We struck the desert yesterday, but didn't know its extent, and by morning all hands believed it was our last tramp. Our provisions and water were exhausted; we had but two ponies, consequently one of the party was obliged to walk, and all lost courage. It seemed certain three must perish if we continued on so slowly. Should one die the remainder might save themselves because of the possibility of traveling faster. We drew lots to see who must give up his life for the others. It fell to me, and after saying good-by, my friends rode away. I walked aimlessly for awhile, hoping to find some such place as this, and then laid down to wait for the coming of death. As the day wore on it seemed as if I was inhaling fire, and all became a blank."

"You have had a narrow escape, and even now the danger is not past. My animals broke away when the storm first came on, and we are at least fifteen miles from safety if we abandon the attempt to cross the desert. You say you are from New York; have you any objection to giving me your name?"

"Most certainly not. It is Frederick Clayton."

"Clayton! I knew a family by that name once," and the stranger's cheek paled despite the bronzing of the sun which had colored it a deep brown.

"Yes, it isn't uncommon. My father is Henry Clayton, in the shipping business, and we live— Say, my dear sir, you're not strong enough yet to talk; that tramp with me on your back has been too much for you," the young man added as he saw his companion sink down and cover his face with his hands. "You have been caring for me with never a thought of yourself."

"I'm in no danger, at least, not from the sand-storm," the other replied, as with an effort he resumed his former position and bit nervously at the ends of his long, yellow moustache to conceal his nervousness. "The heat overcame me for an instant. You were speaking of where you lived."

"Oh, yes, our home is at the corner of Forty-second street and Fifth avenue."

"How many brothers have you?"

"None; but I've got the dearest sister in the world. Do you want to see her picture?" and young Clayton drew from the pocket of his flannel shirt a photograph which looked decidedly the worse for hard usage, handing it to his companion, who shaded his eyes with his hand before looking at it. "It's Ruth; she doesn't seem to be very jolly according to that, and isn't, if I must admit it, since she came back from Enrope. Something happened then, I don't know what, to change her. I have a suspicion that she was rather gone on a Mr. Ogden, who fell or was thrown overboard from the steamer my sister took passage in. She has lost her plumpness, and looks ten years older than when she went away. It's mighty queer to me how love can break a fellow up so! Now, if I ever have the disease go wrong with me, I'll look around for another girl just as pretty, and get cured."

The boy rattled on, paying but little attention to his companion, who was gazing at the portrait much as one gazes at pictures of saints. His hand no longer trembled; but he was forced now and then to cover his eyes entirely, probably because of the sun's blinding rays. That he heard not a word Fred Clayton spoke was certain, for he made no reply when the latter ceased.

Five minutes later the scrutiny was not ended, and the young man said with a laugh: "After all that study I wouldn't be surprised if you'd know my sister wherever you might meet her."

"I fancy I should. She has a wonderfully interesting face, and one could never grow tired looking at it."

"You ought to have seen her just before she went away. This was taken for me the day I left home, and forwarded to Frisco. I've carried it ever since, and but for you it would be buried with me now."

"Some one else might have happened along."

"But they didn't, as we both know, and I should be half a dozen feet below the surface of that burning sand by this time," the boy said with a shudder, and then, as if to change the current of his thoughts, added abruptly: "You haven't told me your name yet."

"I am called Luke Bennett," was the grave reply.

"Are you a prospector?"

"Not exactly, although I have indulged in the business now and then."

"Is it any secret as to why you happened to be here just at this particular time?"

"Certainly not, and yet I can't tell you because I don't know; there was no aim or purpose in the journey. I simply concluded to knock about in this section of the country for awhile, and am now pushing on toward San Francisco."

"Isn't there a chance to take a train?"

"There will be after we travel a matter of a hundred and fifty or two hundred miles."

"Do you live in Frisco?"

"As much there as anywhere else."

"That's an odd answer."

"And there are odd people in the world."

"Did you formerly live in New York?"

"I have been there," was the evasive reply; "but since I no longer have friends or interests in that city, suppose, instead of talking about myself, you keep on in regard to your family."

To one who hardly knows the meaning of the word 'home,' it is always interesting to hear about such places from others. What of this gentleman you said was killed on the steamer?"

"I said it was either an accident or a murder; but no one knows which, although there are many who believe a party by the name of Laurie, who was traveling in my mother's and sister's company, did the deed."

"Why?"

"That's what I never heard explained. At all events if he hadn't a hand in the matter he couldn't persuade some of the passengers he didn't because of his queer actions."

"Why wasn't he arrested?"

"Oh, you see they found no actual proof against him. A fellow can't be hanged simply because he behaves oddly. This man Laurie was on deck very near the time Ogden must have disappeared; but even that couldn't be shown to the satisfaction of a jury, so nothing was ever done about it."

"What was your sister's opinion?"

"She won't speak with anybody regarding the matter. When they first got home she went directly out of the room whenever the subject was brought up. Between you and I, she's got a mighty strong opinion of the business; but when Ruth don't want to talk it's hard work getting anything from her."

"What did you say her name was?"

"Ruth. Haven't I repeated it often enough for you to remember such a common name?"

"I meant her husband's name."

"Why, she isn't married, and never will be, according to her own story."

It seemed to Fred Clayton at this moment as if Luke Bennett gave vent to a sigh of relief; but of course that could not have been, for why should a stranger be so deeply interested in matters which did not concern him?

Then the elder man artfully plied the younger with questions calculated to induce him to talk of home life, and more particularly of his sister, until the sand-storm had blown itself out in the distance, and the sun shone down upon them with rays so fervent that it seemed as if the skin would be blistered.

"It's time we made some kind of a move," Bennett finally said, rising to his feet like one who is sorry to interrupt the conversation. "We have a fifteen-mile tramp before there is any chance of finding my animals, and the question is whether you feel strong enough to undertake it."

"I think so; it was the heat more than anything else that pulled me down before, and now I feel all right."

"Take a long drink of water, for we sha'n't get another until we are off this blinding sand, and that will seem like a very long while."

Clayton drank his fill; plunged his head beneath the surface, and then stood erect as if to say he was ready for the perils undertaking.

"Travel leisurely now," Bennett cautioned, "and we'll hope those blessed animals succeed in running away from the storm, but had the good sense to halt immediately they arrived where there was anything to eat."

"If you don't find them it will only be a case of tramping."

"And perhaps going hungry, for all my weapons and provisions are on the burro."

The two set out at a slow pace, the elder walking so near the young man that he could touch him now and then in a caressing manner, as if there was to him some comfort or consolation in so doing, and overhead the sun shot his fiery darts down upon their defenseless heads, as if determined to overpower them once more.

JAMES OTIS.

(To be continued.)

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Sweeter to me than wisdom seems;
I love to see her toss her hair,
I love to hear her tell her dreams.

Near her philosophers seem fools,
Their logic and inductions chaff;
Forms, maxims, axioms, reasons, rules,
Evaporate in Effie's laugh.
How coldly rigid and aloft
The finger-posts of science shine,
When Effie's digits, warm and soft,
Are playing at "hot hands" with mine!

She's very ignorant, the pet,
Of creed or dogma old or new;
She's very credulous, and yet
Her articles of faith are few.
To reverend men she's barely civil,
Though prompt to succor the forlorn;
She's duly fearful of the devil,
But sees no harm in being born.

Not clear about the "second birth,"
She trusts her sins will be forgiven;
And that when called to quit the earth,
She'll go up, naturally, to heaven.
Meanwhile, too fond, I fear, the rogue is
Of this world's vanities and pomps;
Thinks serious people "awful fogies;"
Nay, 'neath their solemn noses romps,

Leaps, tumbles, screams, to make them
quiver;
Shams stupid to excite their spleen;
Then how she titters! Lord forgive her,
The little imp is scarce thirteen.
And even while I sermonize her,
I sometimes can't repress a sigh
To think that Effie will grow wiser,
That Effie will grow old, and die!

—The Spectator.

THE GROWTH OF TASTE.

TASTE is that faculty of judgment by which we enjoy beauty. Mr. Ruskin says, "Perfect taste is the faculty of receiving the greatest possible pleasure from those material sources which are attractive to our moral nature in its purity and perfection."

Pictures are the principal objects of taste in our homes. Most of us are willing to cultivate our judgment of beauty and submit gracefully to criticism, if it is applied politely.

I know a man who, in the home of an acquaintance, walked up to a crayon portrait, and after regarding it a minute, exclaimed, "My, what a poor job!" Then he crossed the room to another picture, scanned it intently, and then muttered, "Miserable, miserable."

The owner of these pictures was indignant, although she said, "I knew that the work was not good." Let us be careful how we make our comments. There are many persons, like this one mentioned, who do not admire their own ornaments, but who keep them on account of associations or from force of habit.

In having a portrait made, it is advisable to employ a good artist, because it is of first importance that such a work of art should have those high qualities which we shall never outgrow. We are held to such pictures by our affections, a tie which should be strengthened by our artistic approval. If the price of a first-class oil or crayon portrait is beyond our financial ability, a large photograph will be a satisfactory substitute. The point here made is that we cannot afford to outgrow the portraits of our friends.

Let us consider the other kinds of pictures with which we surround ourselves. Let us begin at the bottom—advertisement cards. Many of them are remarkably pretty. They deserve admiration, and in a home where they are the only objects of taste, they do good. They educate the eye, but if they do this in a desirable way, they only lead the taste to something more serious. Many of the flourishing business firms send out calendars which are so beautiful that one does not weary of them during the whole year. Many of these decorations are reproductions of fine paintings. One thing is almost certain to be true of defective taste; namely, a preference for color no matter how crude and glaring it may be. After more cultivation the same person will see greater beauty in mere black and white.

But these pretty novelties are seldom framed and are therefore fleeting. If we look to our walls we will find what we have outgrown. When chromos first became

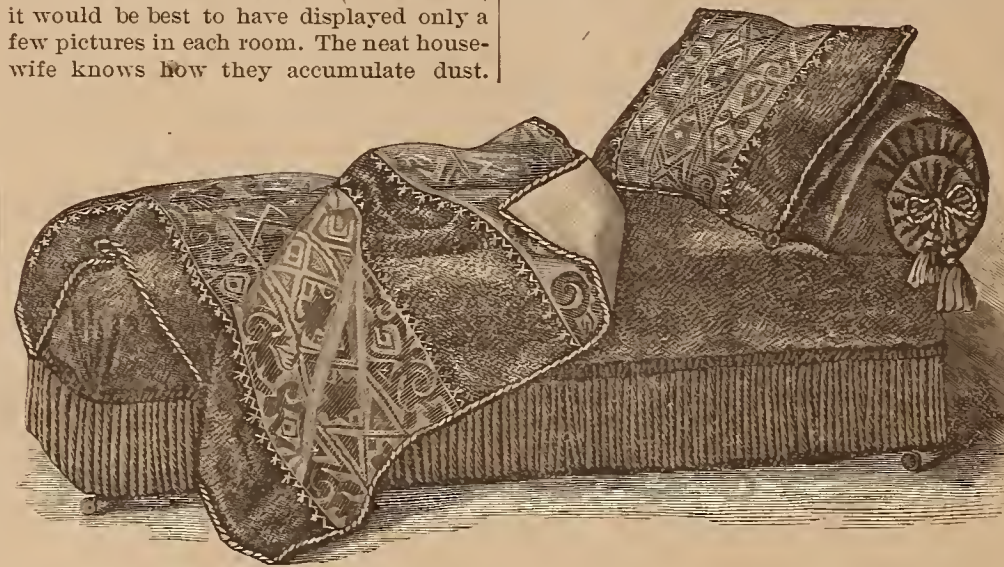
plenty—twenty years ago—it was a favorite custom to offer them as premiums with periodicals. You all know "Asleep" and "Awake." They are still pretty. The chief objection to these, and other oft-produced pictures, is the peculiarity of human nature to grow tired of what is common. To be valuable, a thing must be rare. It is said that people who live near Niagara grow indifferent to its sublimity.

Medley pictures, composed of various small engravings, cannot be in good taste, although some of them show great ingenuity. It is possible that the same woman who labored painfully to make one of these will, after awhile, think it ugly. Then, if she is of a positive character, she will destroy it. If she is averse to changes, she will let it stay, simply because it is there.

Growth of taste is like all growth. We are conscious of it, although we cannot explain the process, but it would be as foolish to wear the clothes we have outgrown as to retain the pictures which are no longer suitable to our pleasure. We outgrow books. We can all remember a time when we hung daily over a favorite volume which now we leave on the shelf. That is nothing against the book. It did us good and helped us to grow, even if in so doing we outgrew it. So with pictures.

What shall we do with these cast-off garments of the mind? If you can find another person whom they will fit, or for whom they are a little too large (hoping for growth), give them away. If, however, you perceive—as sometimes is the case—that they are exponents of false taste and are rather injurious than otherwise, destroy them.

Both as a matter of taste and convenience, it would be best to have displayed only a few pictures in each room. The neat housewife knows how they accumulate dust.



COUCH.

Then let our ornaments be few, of simple beauty, of pure sentiment and expressive of what we really admire.

KATE KAUFFMAN.

MRS. ROSEMARY'S ATTIC.

Tom Rosemary, writing a composition on attics, began:

"Some folks' attics makes you sad,
And some folks' attics makes you glad."

Tom could not get any further, but if he had been an attic philosopher, or had studied political economy, he would have known that their next-door neighbor, Mrs. Hunnibee, had an attic to make angels weep. Mrs. Hunnibee never was known to part with anything that could by any possibility be stored away in her roomy attic. There were such heaps of warm clothing, flannels, blankets, comfortable, downy pillows and feather beds, which no one ever used, while the neighbors in Poverty Lane were shivering with cold this winter weather. Strange to say, Mrs. Hunnibee never thought of associating these poor neighbors with the warm clothing and bedding stored away in her attic.

"Good-for-nothin' creeturs," she said one day when she had taken her work and gone to "set a spell" with Mrs. Rosemary; "they never will hev' anythin', no matter how much you give 'em. Look at those blocks you give Johnny Ramsgate, an' I don't see how you could part with 'em either, an' your baby's finger-marks all over 'em—au' Johnny, he's knocked an' bauged 'em around an' lost half of 'em, an' the rest his mother used for kindlin'-wood. What's the use of tryin' to do for 'em? I allus taught my children to be careful an' savin' of their things, an' I've got most of 'em in the attic now, near as good as new. I came across Nelly's little fur cape an' hood to-day when I was lookin' over things, an' I felt as if I could jes' set down an' hev' a real good cry, it brought everythin' back so." Here Mrs. Hunnibee paused to wipe her eyes, for she was a kindly-hearted woman in her way. "Then I looked over a terrible sight

of books and papers, an' dusted 'em an' put 'em all to rights, until I'm as tired as if I'd done a day's washin'. What do you do with all of your old papers, Anne?"

"We don't have many," replied Mrs. Rosemary. "Tom sends his little paper to the hospital. It is a good way to teach him to think of others."

"Yes, an' he needs it; Tom allus was a graspin' child. Eliphalet says he reckons Tom eats about half of our cherries when they're ripe, but I never say nothin'."

Mrs. Rosemary's pretty face flushed and she looked as if ready to laugh and cry the same minute.

"My papers," she continued, "I send across the street to Nannie Briggs. She is alone so much of evenings, and it is a great deal of company to have something good to read."

"She'd better do somethin' to keep her husband at home instead of settin' around readin' story-papers. I don't believe in puttin' temptation in the way of such folks, myself. Does Miss Briggs ever bring your papers home again?"

"Oh, yes indeed," said Mrs. Rosemary, eager to say a good word for Naunie. "She takes such good care of them and sends them home every week. Then I take them to Mother Washington Glenny. You know she is so old and feeble she cannot go out any more, and she is so grateful for everything to read."

"For goodness sake!" exclaimed Mrs. Hunnibee, with virtuous indignation, "why don't they buy papers themselves? They hev' enough other things."

"Mother Glenny herself has nothing," said Mrs. Rosemary, and then hurried on,

What makes the child ask such a question as that?"

"You said you had everything, and some folks have ghosts," said Tom, exultantly. "I've read about 'em."

"Mom," asked Tom that night when they were alone together, and he was leaning his head on her lap, "why is it some folks have great big houses and great big attics and everything in 'em, and we have such a little bit of a house and no attic to speak of, and nothing hardly in it?"

"Tommy," and Mrs. Rosemary laid her hand caressingly on his brown, dimpled cheek, "we have the finest attic that ever was—the most beautiful heart ever dreamed of—and we have everything in it."

"I'd like to know how it feels, just once, to have everything," and Tom looked up wishfully. "Is it a fairy tale?"

"No, Tom, it's not a fairy tale, it's just as true as true can be—our attic is heaven."

FRANCES BENNETT CALLAWAY.

ABOUT HOME.

We have slipped into the very shortest month of the year, but it will be full enough for the housekeeper. We generally have a thaw and a warm spell; did you ever try doing some of the house cleaning then—some room uot too difficult? Some years I have taken the parlor, and other years the less-used bedrooms, and I find it a great load off my mind.

During this month is a good time to settle all the muslin work for the year. As Empire dresses will likely be worn for summer, some of the skirts could be made if you do not care to do the whole dress.

A good time to look over bed and table linen, replenish the apron-drawer from the skirts of dresses you know you will not wear again.

Utilize all scraps for a new rag carpet in the spring. Say what you will, I like rag carpets. There is something so homelike about them.

If you have a pair of badly-worn blankets, make a "crawling-rug" of the best parts of it, for baby, and treat yourself to a new pair of blankets at the annual clearance sales. I saw a lovely pair of white, part cotton, blankets, for three dollars, to-day, and all wool, in the large sizes, and beautiful borders, can be bought for seven and eight, eider-down quilts for five, and pillows all the way from one dollar to three, according to size, and nothing is more comfortable.

Somewhere I saw the suggestion of the advisability of washing lemons and oranges before using them. It stauds to reason microbes of some kind could gather on them and rapidly pass into food prepared from them.

TRANSPARENT GINGERBREAD.—Take one cupful of flour, one of butter, one of molasses, one of brown sugar, one tablespoonful of ginger, mix in a batter and drop in buttered tins in small teaspoonfuls. Bake quickly, and when you can run a sharp knife over it, cut into squares; lift these out with a cake-turner and roll each one around a stick the size of a broom-handle. Have the stick about twelve or fifteen inches long. It takes a little practice to turn them off nicely.

BURNS.—A correspondent writes us that a bottle of alum-water kept in the medicine-chest will prove very efficacious in case of burns. The water will only absorb a certain amount, so when it is used off it can be refilled. Saturate cloths and lay on the burn, and keep wet; it will ease almost immediately. Nearly every young housekeeper goes through her time of burns and cuts before she learns to avoid them.

So many ask, "What shall I do for my complexion?"

"It is said that some New York ladies are living almost entirely on oranges. Half a dozen for breakfast, with a cup of coffee, a dozen for lunch, with a glass of milk and a saucer of oatmeal, and a dozen more for supper, with a crust of bread and a sip of tea, may not be high living in the proper sense of the word, but such a course of diet will bring a complexion which will drive almost any belle out of her head with envy."

Now, after all, complexion is a good deal a matter of diet, so try living without meat for awhile, and leave pastry out of your bill of fare for awhile, don't eat hot biscuit so much, or gravy, and see if you will not be better every way.

CHAIRS AND COUCHES.—I think so many young people make a mistake, when first going to housekeeping, of buying too many things, and buying cheap things. There is nothing enjoyed so much every day as a

comfortable easy-chair or couch, and at night so much as a comfortable bed. These things should be of the very best you can possibly afford from the first. Then you are sure of them. Lace curtains of a good quality will last fifteen years, with care. The couch and chair we illustrate cost, in leather, fifty dollars apiece, but they would wear one's lifetime. Somehow one does not replenish furniture as often as other things, and if you indulge in cheap stuff, put together with glue, you can expect to be obliged to buy more soon. There is a very smart look given to all cheap furniture to make it sell, but that lasts only so short a time and then it shows its cheapness every way it can. I would rather gradually replenish the household things one at a time, and wait till I could have them of the best quality. Then add corresponding ones at other times.

CHRISTIE IRVING.

AFTER CHRISTMAS.

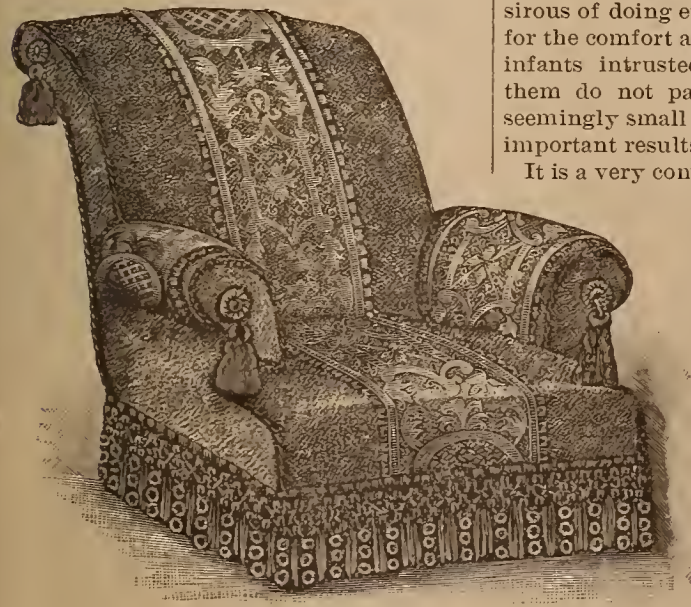
Are you all tired of the subject of Christmas for the present? Really, every paper and magazine has had a good half of its columns filled with Christmas stories, Christmas gifts, Christmas decorations and Christmas "goodies." And now is the very time I wish to talk with you, before you forget how your head ached from continual study of "what for who," and "how much for all," and "how far that pocket-book would cover expenses."

When the presents were selected, haven't you a distinct recollection of the weary hours, and many of them were late ones, that you spent in fashioning some of those materials into lovely shapes and designs for some loved one? It would have been a labor of love, if you had not been so hurried and pressed for time. Many a present is given, "to be finished after Christmas;" this is not very satisfactory to either party. Don't you remember how the arms and back ached from baking and cooking the Christmas goodies in one day, when three or four should have been taken for this work, but could not be spared if other presents were finished in time? Oh, sisters! truly there should be a different plan followed in many a home. The merry Christmas-time should be the truly happy one of any holiday in the whole year. How can it be when the mother and elder sisters are completely tired out with the preparations?

And now, while all these things are fresh in your mind, I would urge you to begin now. Have a small, blank book and note down a list of presents for each one as you hear them express a wish for some desired article. It will be much easier to select something from such a list than to think and think and think, till one's head is ready to crack, and even then not select anything desirable.

If you have some spare cash to invest in holiday goods, you can get them a third or even a half cheaper from some of the large stores after the holiday rush is over. It will pay you a big per cent of interest on the cash to buy now for next Christmas.

There are many standard articles that are always desirable for some one, and one will make no mistake in purchasing such, as



CHAIR.

they will give pleasure to some one of the family circle. Through the windy, stormy March days, when the bad roads keep the farmer wives close prisoners, there are many spare moments that might be filled in with another year's Christmas work.

Crocheted lambrequins, table-mats, head-rests, tidies, picture-throws, trimmings for aprons and flannel skirts, fascinators, slippers, afghans, or carriage-ropes, and such an endless variety of this work can be

turned off during the long winter evenings and stormy days. Any of them make desirable presents, and may be expensive or not, as the maker sees fit. You can perhaps strike a bargain in woolen yarns as it comes nearer spring. The merchant will sell cheap rather than pack away and run the risk of moths. Mothers' warm mittens are always welcome, you know.

Another word for the benefit of the little ones.

In the spring there are always so many seed catalogues distributed that have many pretty, bright pages of flowers and fruit. Cut these pages out when the book first comes, before they get soiled and torn, and paste them into a scrap-book for the next Christmas. It will make some little fellow happy. You have no idea how many pretty pictures can be gathered up, if you only commence in time and not wait until the book must be finished in a day, or a week even.

A book of another sort will make the older children glad. Keep on the watch every day for some good pieces in waste papers, that may be spoken at the school rhetorical. Cut these pieces out and lay them away in a box to paste into a scrap-book; or leave them separate in a fancy box to be given at Christmas. Mother won't be teased for a week or two with, "Ma, what shall I speak?" "Ma, find me a piece," or "Ma, can't you 'member something?" I assure you. The pieces may be poetry or prose.

And now a word to the girls who want to do something for mother and very often get but little spending money. Don't you remember about that quilt I told you about two years ago? It was made of blocks from different friends' piecing of calicoes. Each one would give one block of a certain size specified when the favor was asked. There were many different styles of blocks, but all of the same size. In each one's block was the owner's name printed in indelible ink. When this quilt was put together it was certainly novel-looking and very much of a friendly keepsake.

I hope all the FARM AND FIRESIDE readers may be like the girl who was asked to go shopping for Christmas in the rush and swim of the holiday trade. She declined with thanks, and said she was happy at home, with a clear head, whole elbows and spotless raiment, and—her shopping was all done. "When, I pray you?" asked her friend. "Oh, about the middle of last January, I think."

Perhaps that is putting things together rather rashly; but please let us all remember just how we worked and worried and hustled when we ought to have rested and visited with some member just home for the holidays, and this New-Year commence in time to get many a gift done and laid by before the summer days even, and everything done in that line in plenty of season for a real whole jolly Christmas with the children; they never, never will forget the dear good times under the old home roof. See to it that they are pleasant.

GYPSY.

HOW TO CARE FOR THE BABY IN LITTLE THINGS.

While mothers generally are very desirous of doing everything in their power for the comfort and well-being of the little infants intrusted to their care, many of them do not pay the attention to some seemingly small matters that bring about important results.

It is a very common practice with mothers and nurses to lay a young baby always on the same side on its pillow, thus making the little face one-sided. In some children this is very noticeable. An infant should always be accustomed to sleep on both sides and laid down alternately, as well as occasionally, on its back. The little ears should always set closely to the head when laid upon its pillow or when its little

bonnet is put on, for if doubled under they will bend forward or take an ugly shape, which will be very disfiguring as the child grows older. A baby should have its eyes shaded from the light while sleeping, as well as be kept very quiet. Standing a child on the feet while too young to support its weight will cause it to be bow-legged. Children are made high-shouldered by being led by one hand all the time in walking.

While bathing an infant is an excellent practice, it should never be kept in the bath over ten minutes and the water should be the proper temperature, while the room should be very warm. The bath should never be given on a full stomach. When a child is very nervous a sponge bath will be found best. A little borax added to the water will be cleansing and smoothing.

Babies should be fed with regularity for the first two months every two hours; then the time may be lengthened to every three hours. After a child is six months old it should never be let nurse at night. Unless the weather is very cold a daily airing should be given the baby.

Great care should be taken to have an infant's clothing comfortable. Fortunately for the present generation, this matter is in the hands of artistic women who consider health as well as comfort, and mothers can order a full wardrobe for their darlings at less cost, to say nothing of the trouble saved, than if made at home. Some children cannot wear flannel next the skin. For these, little silk shirts may be made, or linen under the flannel can be worn.

Some babies chafe very easily. For such, cocoa butter should be used after the morning bath.

Attention to these suggestions will be found to contribute greatly to the well-being of the child and the relief of the mother.

ELIZA R. PARKER.

THE PROGRESSIVE HEN.

A famous hen's my story's theme,
Who ne'er was known to tire
Of laying eggs, but then she'd scream
So loud o'er every egg, 'twould seem
The house must be on fire.

A turkey-cock, who ruled the walk,
A wiser bird and older,
Could bear't no more, so off did stalk,
Right to the hen and told her:
"Madame, that scream, I apprehend,
Does nothing to the matter;
It surely helps the eggs no whit;
Then lay your egg and done with it.
I pray you, madame, as a friend
Cease that superfluous chatter.

"You know not how't goes thro' my head."
"Humph, very likely," madame said.
Then proudly putting forth a leg:
"Uneducated barn-yard fowl,
You know no more than any owl
The noble privilege and praise
Of authorship in modern days—
I'll tell you why I do it:
First you perceive I lay my egg,
And then—review it."
—From the German of Herr Von Auersberg.

BRIER-EDGE RUCHING.

First cast on 30 stitches and knit across plain.

First row—Slip 1, k 1, oo, p 2 tog, k 2, p 13, (oo, p 2 tog) 4 times, k 1, oo, k 2, turn.

Second row—Sl 1, k 2, p 1, k 1, *, (oo, p 2 tog) 4 times, k 2, (o, n) 4 times, k 3, turn, leaving 6 stitches on the left-hand needle.

Third row—Sl 1, p 2, (oo, p 2 tog) 9 times, k 5, turn.

Fourth row—Sl 1, k 1, oo, n, oo, k 1. Repeat second row from *.

Fifth row—Sl 1, p 12, (oo, p 2 tog) 4 times, k 2, p 1, k 2, p 1, k 2, turn.

Sixth row—Sl and b off 5 st, k 2, (oo, p 2 tog) 4 times, k 15, oo, p 2 tog, k 2, also knitting the 6 stitches left on the left-hand needle.

Seventh row—Sl 1, k 1, oo, p 2 tog, k 15, (oo, p 2 tog) 4 times, k 3, turn.

Eighth row—Sl 1, k 1, oo, k 1, (oo, p 2 tog) 4 times, p 13, turn, leaving 6 st on the left-hand needle.

Ninth row—Sl 1, k 2, (o, n) 4 times, k 2, (oo, p 2 tog) 4 times, *, k 2, p 1, k 2, turn.

Tenth row—Sl 1, k 4, (oo, p 2 tog) 9 times, p 3, turn, leaving 6 st on the left-hand needle.

Eleventh row—Repeat same as ninth row to *, k 5, turn.

Twelfth row—Sl 1, k 1, oo, n, oo, k 1, (oo, p 2 tog) 4 times, p 13, k 2, oo, p 2 tog, k 2, turn.

Thirteenth row—Sl 1, k 1, oo, p 2 tog, k 15, (oo, p 2 tog) 4 times, k 2, p 1, k 2, p 1, k 2, turn.

Fourteenth row—Repeat same as sixth row.

Repeat from first row for length required.

ELLA McCOWAN.

GINGERBREAD BAROMETER.

A clever Frenchman, who has original ideas on most subjects, employs a kind of barometer which may be safely called unique. It is nothing more nor less than the figure of a general made of gingerbread. He buys it every year at the Place du Throne, takes it home and hangs it by a string on a nail.

Gingerbread, as everyone knows, is easily affected by changes in the atmosphere. The slightest moisture renders it soft; in



BRIER-EDGE RUCHING.

dry weather, on the contrary, it grows hard and tough.

Every morning on going out, the Frenchman asks his servant, "What does the general say?" and the man applies his thumb to the gingerbread figure.

Sometimes he replies: "The general feels soft; he would advise your carrying an umbrella." On the other hand, when the general's symptoms are hard and unyielding, the Frenchman sallies forth arrayed in his best, with no fears for his spotless suit or his new hat. He says the general has so far never proved unworthy of the confidence placed in his prognostications.

FORETELLING THE WEATHER.

Let me briefly describe the method: The weather bureau has agents, who are called "observers," at all the places throughout the country from which it desires daily information. At the moment the clock strikes 8 in Boston—that is, in eastern standard time—these observers go to their instruments and write down what is recorded at that instant. These instruments tell them the temperature, the pressure of the air, the direction of the wind and how many miles an hour it is moving, and the observers need only use their eyes to find out whether it is cloudy, or clear, or raining. They tell by the registering thermometer how cold it was during the night, that is, the lowest temperature. Then the observers go to their telegraph instruments and forward their reports at once to the central office at Washington.

Government messages have "right of way" through all telegraph offices, and other business must stand still for them; so it is not many minutes after 8 o'clock when the central office is ready to make a map, which, by the use of convenient symbols and lines, gives all the facts in a very small space. Before the map is drawn, however, the reports are carefully compared and all made into one, and are sent by telegraph again to Boston, New York, St. Louis, Chicago, and all the cities which are sufficiently large to make it worth while to print a map like that made in Washington.

In this way maps all just alike are being made in many cities at the same moment of time. The printing-machinery used is made for the purpose, and is very rapid. Often as early as 10 o'clock in the morning, only two hours after the observers on the Pacific coast wrote their reports, the map containing those reports is printed in Boston. I am sure there is no newspaper able to do such rapid work as this. The government, however, has two great advantages: Its dispatches are sent before even press dispatches, and the machinery for printing requires less time than the type-setting and printing work of a newspaper.

The method was perfected and patented by J. William Smith, the observer at Boston, to whom also, I think, belongs the credit of getting the boys and girls enough interested in the maps to study them. Quite recently he made an address to the Boston public school-teachers, in the teachers' central lecture-room, and, of course, he was able to tell them many new things about the weather. And this new knowledge they carried back to their schools and repeated to their pupils, greatly to the interest and advantage of all.

Nearly all the large schools take the maps now, and the boys and girls like to puzzle them over, and to see how good a guess they can make as to what the weather will be next day.—S. A. Wetmore, in October St. Nicholas.

Our Household.

AFTER THE HOLIDAYS.

It seems so strange to-night!

No little children stand beside my chair
With prattle quaint. No light.
Cool fingers stray about, and through my hair.
While tender faces quick to note each change
Oft turn with mute caress.
As though to tell in ways as sweet, as strange
What lips cannot express.

It seems so strange to-night!

This lonely silence in the listening-room.
That waits, with shaded light.
Or calls aloud in clock-ticks through the gloom.
I miss each merry, wise, unconscious speech.
Each loving good-night kiss.
The trustful faith a little child can teach.
That, most of all, I miss.

MARION LEROY.

It seems so strange to-night

That they should be at school, and I alone.
Yet I, with piteous might.
Still strive to understand what must be known.
Life's lessons are so hard throughout our years
Whilst childhood's hours are bright.
That we should wish them knowledge, learned through tears.
It seems so strange to-night.

MAUD WYMAN.

Oakland, Cal.

DOMESTIC GOSSIP.

ONE of the prettiest and daintiest flannel skirts I ever saw was given to a friend of mine on Christmas. The body of the skirt was of the softest and finest white flannel, and the embroidery was in dark green and orange silk floss. That combination may sound a little gaudy, but there was nothing gaudy about the article itself. It was scalloped about the foot with an orange scallop composed of three curves, above which, inverted, was another scallop made in the same way. The finished points of the two scallops met, giving a charming effect. A little to one side of the middle of the front breadth there was a cluster of orange buds and flowers, with green foliage, running up about four or five inches above the border. The band about the waist was a piece of white moire ribbon lined with silesia and catch-stitched on with the dark green silk. I did not ask whether this beautiful garment would stand the test of the wash-tub, but presume no one would have put such an amount of skillful work on it without first having first assured herself that the floss would "wash."

I myself had a gift less beautiful, but perhaps more useful—a pair of mittens made of ticking, for sweeping purposes and for handling coal. I have been accustomed to using a pair of men's gloves, but the lining of these soils easily and cannot be washed; whereas, the mittens can, if need be, be cleansed every week.

While on this subject of saving the hands, which at best look none too well in winter, I must tell you what I consider the very best kind of a glove to use when blacking stoves. Tie a couple of paper bags around your wrists. It does not hinder your use of the brush, but prevents the grime of the stove-polish from getting into the cracks in the skin.

We often talk about dishes "fit for a king," but I am not sure that kings and queens know any more, if as much, about toothsome and palatable food as plain, every-day Americans. For instance, news comes to us from across the Atlantic that her majesty, Queen Victoria, had a "boar's head" on her table on Christmas day, such as the half-civilized English gentry of the middle ages indulged in on coming home from the hunt, when quantity and coarse abundance meant more than quality. We are also told that she had "a baron of beef" (two undivided sirloins), cold, on which her monogram was inscribed in "shredded horse-radish," on the sideboard. In plain words, she treated herself to pork and beef, which are to most Americans an every-day affair, and no rarity. How does that compare with escalloped oysters, roast turkey and all the other good things our people treat themselves and their friends to on feast days? It is true, we sometimes make a mistake and have "a bore's head" at our tables, but it is usually on somebody's shoulders.

I wonder, these cold winter mornings, how many women readers of this paper are obliged to get up and make their own fires, lift ashes, thaw out frozen water and start things for the day. Men call women "the

weaker vessels," and so they are, physically. They feel the cold much more than men, who are accustomed to be out in it and have become, as it were, "case-hardened." For that reason, it seems more appropriate for the man to clear the way for the woman's daily work, by making the house comfortable for her before she gets up. I once knew a man who said about this matter, that "if men didn't want to do the rough work, let them take off their beards." I know several men who have the fires burning and the coffee-pot sending out a delicious aroma when their wives put their heads into kitchen. They are not "Miss Nancys," either, and go out daily to their manly labor with as much self-respect as if they had lain in bed until told that breakfast was ready.

MARION LEROY.

BOYS' CLOTHES.

It is often advisable from many points of economy to make very small boys' clothes at home.

Material can often be found in the cast-off articles of the father or older boys of the family.

The first suit will be quite an undertaking, but with good patterns, and a careful looking over of a well-made suit, the garments can be nicely put together.

Good stitching and pressing are at the bottom of a well-appearing suit.

A narrow, thick board without any covering is the best, as you can slip it into a sleeve or the leg of the pants.

Both seams of the sleeve must be sewed up before putting in the lining, which must also be seamed separately.

Regular tailor buttonholes will be necessary on boys' garments. These are stayed all around by a double thread carried from end to end of the buttonhole, and across



BOYS' CLOTHES.

the end where the strain of the button comes, to form a bar.

Waxed twist should be used in working them.

The inside band with the buttonholes for the pants should be of heavy, unbleached cotton and the buttonholes worked with No. 30 thread, and the strain end of the buttonhole stayed with a fine cord held close to the edge while working it.

All the pockets of the coat must be made and put in the outside material first thing.

The simulated vest may be made upon a waist buttoning behind and to which the pants may be buttoned.

It is much more convenient in dressing the child to have the clothes attached permanently to a waist.

L. L. C.

UNFOLDING.

There is a plant that must be carefully nurtured and tended a hundred years before its blossom appears. When this long-looked-for time has come, eager crowds gather that they may have the rare pleasure of gazing upon its lovely bloom. The owner, in seeing the perfection of the flower, feels well repaid for his many years of waiting. Well may he feel gratified by the sight, yet it is only a flower, to decay, and forever pass away—so much thought to bestow upon a perishable thing!

Has it ever occurred to you, mothers, that you have a plant in your keeping, that by proper training and care may bloom forever in the paradise of the blest? Oh, think of your responsibility! You have accepted, perhaps thoughtlessly, as your trust, a frail, pure and spotless plant from the hands of God. If this being is nurtured, trained and cared for properly, the result will be such a symmetrical whole that the human semblance will be almost lost in the divine; or in training, this being can be so marred,

dwarfed, distorted and the divine image so blurred that both the manlike and Godlike natures are lost, and he sinks below the brute creation.

No parent can shrink the responsibility placed upon him when a child is intrusted to his keeping. He may not realize, recognize or acknowledge this, but this position does not disprove the fact or relieve him of his accountability. He is responsible both to man and God. To man, indirectly, because in the life of every human being, a cycle of influence is set in motion which will widen and widen, and effect society, for weal or woe, until the world shall cease its course; to God, directly, for the good he might have done.

Oh, man! Oh, woman! take not upon yourself marriage, with all it implies, if you are not willing to lay upon its altar everything in your natures that would have a refining and elevating influence upon the probable future human immortelles that may be handed down to your keeping from the garden above.

SOPHIA N. REDDIN JENKINS.

DRAINAGE.

Talk as we will of the advantages the country offers over the city from a health point of view, there is an existing evil, a breeder of disease right at our very back door, of which our city cousins are happily ignorant. The freedom, the abundance, the pure air, the beauty of the landscape are all well enough, and we are thankful for them, but there is one thing sadly neglected which is a fruitful source of much ill health.

In the city the sewerage, although often out of order, is constantly doing its work, while in the country, drainage about the house is often very imperfect, much of the material which ought to be carried off finding its way into the well which supplies the house with drinking-water. Often the barn and other outbuildings are not on a good slope, and the water therefrom, instead of being carried off, finds its way toward the house and filters into the vein that feeds the well.

We are careless about throwing out slops; it is so easy to step to the door and pitch them out. Every kitchen ought to have a tin slop-pail, for every housekeeper knows that during the process of a meal how very inconvenient it is to run out with all the waste that occurs. A tin pail is best, because a wooden one absorbs the grease. Un-

less the quantity of slop thrown out be very great, the ground will absorb it before it reaches the vein feeding the well, but the evil is in nowise remedied, for the surroundings soon become unsightly, and worse still, they become filthy, and you have a good forerunner of typhoid fever right at your door. Remedy this by providing slop-pails both in and out of the kitchen.

A tile inserted perpendicularly and connecting with a drain is a convenient deposit for wash-water and clean waste. Have one at your kitchen door. Fill it with small stones and charcoal for a filter.

An empty tobacco-bucket may be had for a small sum, and it makes a good outside pail. Don't keep it too near the door; it is apt to be overfilled; and then, too, it calls flies and chickens.

Another don't: Don't have a slop-barrel. It will be very offensive in hot weather, besides not getting emptied often enough.

Another evil by no means uncommon in the country and small towns, where there is no drainage system, is the neglect of vaults. In rare instances they are not provided at all. Under no circumstances ought such a building be dispensed with. The need of it is imperative. One of the best sites for a water-closet is over a small ditch. Broad planks may be laid across, on which the closet may rest. The ditch does not need to afford water at all times, but during a rain will drain to the surrounding area; in this way there will be an occasional washout, thereby preventing the accumulation of refuse. It is not always possible to find such a situation, but it is possible to build the closet with a hinged back which can be lifted, thereby affording easy access for cleansing purposes. There is no worse vault than the one which is very deep and walled, but if

used should have a drain connected with it; it has little, however, to recommend it. The closet should be provided with soft toilet-paper. Newspapers should never find their way here, as the contents of printer's ink is very injurious.

Consider these matters from a health point of view, and you will readily see that they are matters worthy of careful consideration.

VALEAS.

SNOWBALLED THEIR QUEEN.

Little Queen Wilhelmina, of the Netherlands, some weeks ago got into a muss which is probably without precedent in the annals of kings and queens. She and her mother had driven out from the city as usual in the afternoon for an airing. As is the wont of the unostentatious queen-mother, they drove in a plain carriage, unattended by outriders or footmen. In a hamlet about two miles from the capital, they came upon a crowd of young school-children in the midst of a hot snowball fight. The carriage was stopped, so that the little sovereign might observe how her little subjects amused themselves.

It was give and take, hot and heavy, among the combatants. The weaker party began to go to the wall. Just as its discomfiture was aggravated by the fall of the boy leader, who had got a ball of slush in the eye, the young queen sprang to her feet and leaped from the carriage. She ran between the two parties of combatants and called out that the victors must at once stop snowballing.

She had the proverbial luck of peacemakers. All the children turned on her, and before the coachman could come to her aid, had her half buried under a great pile of snow. When pulled out, Wilhelmina shook out her skirts, drew herself up, and said calmly:

"Boys and girls, I am your queen."

The agitation of the coachman corroborated this simple declaration. The children were too much frightened to run away. All of them became white and scared and most of them sniveled piteously. Queen Emma added to their terror by ordering the coachman to take their names. The next day, however, the mourning of every child was turned to gladness when it received a box of toys with the good wishes of the child sovereign.

MENDING FIRE-BRICK.

There are very few housewives who know that a simple cement may be made at home, which will successfully join broken fire-brick, so that they may be used for years. There are few things more unsatisfactory than modern fire linings. The bricks are easily cracked and frequently last but a few months, while in other cases they are often in use for years. It is a great mistake to allow the fire-bricks to get in bad order. There is an iron plate back of the fire-bricks in every stove, but this is easily burned through, and it costs a large sum to replace it. Therefore, it is a matter of moment whenever there is a crack in the fire-bed of the stove, and it should be mended at once, or the broken bricks should be replaced.

The cement to mend these bricks consists simply of powdered soapstone, which may be procured of a druggist, mixed with an even quantity of common salt and wet to a paste with water. This hardens very rapidly after it is put on, and as the soapstone is fire-proof, it is lasting. Do not substitute powdered pumice-stone or rollen-stone for it, as they will not last as long as soapstone, though various things, even sifted ashes, may be mixed with salt in this way, to form a temporary cement in case of emergency. Some people prefer to line their stoves with potter's clay, instead of brick, and it is said to answer the purpose very well.—N. Y. Tribune.

1,000,000 TIRED OUT PEOPLE

are thinking to-day that all they need to make them feel well is "a little rest." It is true that the rest cure is often the best cure, but it is also true that a great many people cannot afford to rest indefinitely. Worse still, the very knowledge that they cannot afford it, seriously interferes with the best use of the rest they have. Too often going to the doctor means that the patient shall stop short, while cares, duties and expenses keep right on. It is highly desirable then that some treatment be found for this numerous class—something that will neither interfere with their business or pleasure. In this respect nothing in the world can compare with Drs. Starkey and Palen's Compound Oxygen. For more than twenty years this well-known agent has made multitudes of run-down, over-worked, nervous and sick people as good as new, and that right at their own homes and occupations. From the 60,000 cases which they have carefully recorded they can give you incontestable proof, doubtless in your own neighborhood. If in need of better health, write them. That is better than "rainbow-chasing" after rest which never comes. Drs. STARKEY & PALEN, 1529 Arch St., Philadelphia, or Chicago, San Francisco, New York, and Toronto, Ont.

MY NEIGHBOR'S BOY.

He seems to be several boys in one,
So much is he constantly everywhere!
And the mischievous things that boy has done
No mind can remember nor mouth declare,
He fills the whole of his share of space
With his strong, straight form and his merry face.

He is very cowardly, very brave,
He is kind and cruel, good and bad,
A brute and a hero! Who will save
The best from the worst of my neighbor's lad?
The mean and noble strive to-day—
Which of the powers will have its way?
The world is needing his strength and skill.
He will make hearts happy or make them ache.

What power is in him for good or ill?
Which of life's paths will his swift feet take?
Will he rise and draw others up with him,
Or the light that is in him burn low and dim?
But what is my neighbor's boy to me
More than a nuisance? My neighbor's boy,
Though I have some tears for what he may be,
Is a source of solicitude, hope and joy,
And a constant pleasure. Because I pray
That the best that is in him will rule some day.
He passes me by with a smile and a nod,
He knows I have hope of him—guesses, too,
That I whisper his name when I ask of God
That men may be righteous his will to do.
And I think that many would have more joy
If they loved and prayed for a neighbor's boy.
—London Christian World.

SOME SUGGESTIONS FOR FANCY WORK.

"Have you anything new for fancy work?" is a question often asked but difficult to answer. For those living in the large cities there are constantly recurring opportunities for seeing every novelty offered upon the counters of the principal stores which now make a specialty of embroidery, and also in the show-rooms of the art establishments; but to those living far from these busy centers no such occasion arises; and it is principally for the latter I am writing.

Linen for household decoration is now so inexpensive as to be within the reach of all; it only remains with one's own self to determine the style, quantity and quality of the work to be put on it. For bed-linen, the sheets should be made of much heavier weight than the pillow-cases, which should be fine. In purchasing, get that manufactured for the purpose, as the overseam in the middle of the sheets is avoided.

If one has time and patience, drawn-work above the hem of both sheets and pillow-cases will add much to their daintiness. Pillow-cases and sheets may both have monograms or initials in white embroidery. Small books having illustrations of drawn-work, with full directions, may be purchased for a trifling sum.

Many still prefer to use small pillows at night, making up the bed in the daytime with a large, round bolster instead of square pillows and shams. The bolsters are covered to match the spread.

Towels come now in such exquisite variety and richness of design and color in the borderings that an embroidered initial or monogram is the only necessary addition. If colors are used, make the last letter of the monogram the most conspicuous.

Nothing is so pretty for bureau or chiffonier as a large scarf of India or other soft silk carelessly arranged, in the folds of which nestle the various articles of the toilet.

Large pincushions are still used, but little pin-trays of silver or hand-painted china are found very convenient. These are also made of plain satin damask, stamped with a large pansy, wild rose or dogwood flower, embroidered in long and short stitch, the edges buttonholed and then mounted on a stiff foundation bent in the natural shape of the blossom.

Larger trays for comb and brush are made and mounted in the same manner, or may have a border of small flowers and scattered sprays. The corners are either cut out or drawn together with ribbon bows.

Cushions for lace pins are a very necessary adjunct to every toilet-table. They should be made of muslin and filled with wool or hair, then covered with silk or surah, taking a large piece for the under part, bringing it up full over the corners, if square, hiding the edges under a smaller piece for the top. The covers for these little cushions are tiny squares of fine linen, hemstitched and edged with narrow lace, having small flowers embroidered on them in natural colors. Take a separate piece of the linen and have a butterfly with outstretched wings stamped upon it. Embroider in buttonhole stitch, but leave the body part plain. Press the embroidery, cut it out, then lay it on the cover and embroider the body part through both, leaving the wings free. These seem very life-like, as they move at the slightest breath.

A CHATHAM MIRACLE.

DR. CARL VERRINDER'S VICISSITUDES OF FORTUNE AND OF HEALTH.

HE SURVIVES THEM ALL, AND RECOUNTS HIS WONDERFUL DELIVERANCE FROM POVERTY AND DEATH, AND HIS RESTORATION TO PROSPERITY AND VIGOR OF MIND AND BODY—GOOD WORDS FOR THE A. O. U. W.

(Chatham Planet.)

In a Raleigh street residence there lives with wife and one child—a little ten-year-old daughter—a musician known throughout Ontario, if not the whole Dominion, as a prince among pianists, organists and choir masters—a veritable *maestro* and "Wizard of the Ivory Keys," and no one who has ever listened to his manipulation of the great organ in the Park Street Methodist Church, or heard him evoke "magic music's mystic melody" from the magnificent Decker Grand in his own drawing-room but will declare that his eminence is well deserved, and his peers can be but few among the professors of Divine Art. The door-plate bears the following inscription:—

CONSERVATORY OF MUSIC.

DR. CARL LEO VERRINDER,
Director.

To sit, as did a *Planet* reporter a few days ago, in a very atmosphere of sweet harmony, created by Dr. Verrinder's magician-like touch was an experience that might well be envied, and one calculated to inspire the most sentimental reveries. But sentimental moods finally vanish and leave one facing the sober and practical side of life. The music ceased and the conversation took a turn leading to the real object of the reporter's call.

"There are stories abroad," said the newspaper man, "regarding some extraordinary deliverance from death, which you have met with recently, doctor. Would you object to stating what foundation there is for them, and, if any, furnish me with the true facts for publication?" Dr. Verrinder shrugged his shoulders and laughed. "I have not," he replied, "been given to seeking newspaper notoriety, and at fifty-five years of age it is not likely I shall begin, and yet," said the professor after thinking a moment and consulting Mrs. Verrinder, "perhaps it is best that I should give you the circumstances for use in *The Planet*. The story of my rescue from the grave might fittingly be prefaced by a little of my early history. We resided in England, where though I was a professor of music, I was not dependent on my art, as I had acquired a competence. My wife was an heiress, having £50,000 in her own right. Through the rascality of a broker she was robbed almost of all her fortune, while by the Bank of Glasgow failure, my money vanished forever. It became necessary for me then to return to my profession in order to live. I do not speak of it boastfully, but I stood well among the musicians of that day in the old land. My fees were a guinea a lesson, and it was no uncommon thing for me to give twenty in a day. We came to America, landing in Quebec, where I anticipated getting an engagement as organist in the cathedral, but was disappointed. Subsequently we moved to St. Catharines, in which city I procured an organ and choir and soon had a large clientele. Later, in order as I thought to better my fortune, I took up my residence in London, first filling an engagement with a Methodist church and afterwards accepting the position of organist in St. Peter's Cathedral. In those cities I made many warm friends, and their tributes and gifts I shall ever retain as among the most precious of my possessions. It was while living in London and pursuing my art with much earnestness and labor that I received a stroke of paralysis. Perhaps,"—here the speaker rose and stretched himself to his full height, thus displaying his well-built and well-nourished frame—"I do not look like a paralytic. But the truth is I have had three strokes—yes, sir, first, second and third, and they say the third is fatal, ninety-nine times out of one hundred. Yet here you see before you a three-stroke victim, and a man who feels, both in body and mind, as vigorous as he ever did in his life. My ultimate cure I attribute to my testing the virtues of a medicine whose praise I shall never cease sounding as long as I live, and which I shall recommend to suffering humanity as I am now constantly doing, while I know of a case and can reach the ear of the patient. After removing to Chatham I had not long been

here when my health further began to give way. Gradually I noted the change. I felt it first and most strongly in a stomach affection which produced constant and distressing nausea. It grew worse and worse. I myself attributed it to bad water poisoning my system. One doctor said it was catarrh of the stomach. Another pronounced it diabetes, still another a different diagnosis. I kept on doctoring, but getting no relief. I tried one medicine after another, but it was no use. Grippe attacked me and added to my pain, discomfort and weakness. At last I took to my bed and it seemed that I was never going to get well. Nothing of a nourishing nature would remain on my stomach. No drugs seemed to have a counter-acting influence on the disease which was dragging me down to death. My wife would sit at my bedside and moisten my lips with diluted spirits, which was all that could be done to relieve me. Besides three local doctors who gave me up, I had doctors from London and Kingston whose skill I believed in and to whom I paid heavy fees, but without receiving any help or encouragement. It is true that a stomach pump operation afforded temporary relief, but yet I felt that my peculiar case needed some special and particular compound or remedial agent which I knew not of. But, at last, thank God, I discovered it. I had been for eighteen months a miserable wreck, unable to work, unable to eat or to sleep properly. My means were becoming exhausted. My poor wife was worn out in body and spirit. Suddenly the deliverer came! Pink Pills! Yes, sir! Pink Pills—God bless their inventor or discoverer!—have rescued me from the jaws of death and miraculously made me what you see me to-day, hearty, happy, with a splendid appetite, a clear brain, a capacity for work and an ability to sleep sound and refreshing sleep—a boon that only a man who has experienced the terrors of insomnia can rightly appreciate. Bear in mind, my friend, I am no wild enthusiast over the supposed merits of this medicine. I have tested the virtues of Pink Pills and am ready to take oath to their efficacy. No one could shake my faith in them; because what a man has thoroughly proved in his own experience, and what he has had confirmed in the experience of others—I have prescribed the pills to other sick persons and know what extraordinary good they have effected in their cases—he ought to be convinced is so. I shall tell you how I came to try them. A fellow-member of the A. O. U. W., the brethren of which order had been more than kind to me during my illness, recommended Pink Pills. I knew nothing about what they were or what they could accomplish. In fact, I am rather a skeptic on what are termed 'proprietary remedies.' But I started to take Pink Pills for Pale People, made by the Dr. Williams' Medicine Co., Brockville. From the very first, one at a dose, I began to mend, and before I had taken more than a box or two I knew that I had found the right remedy and that to the Pink Pills I owed my life. In nine months I have taken twelve boxes—just six dollars worth. Think of it my friend! Hundreds of dollars for other treatment, and only six dollars for what has made a man of me and set me again on the highway of health and prosperity. There is some subtle, life-giving principle in Pink Pills which I do not attempt to fathom. I only knew, like the blind man of old: 'Once I was blind; now I can see!' God, in the mystery of his providence, directed my brother of the A. O. U. W. to me. I took it. I live and rejoice in my health and strength. I have no physical malady, save a slight stiffness in my leg due to grippe. I feel as well as in my palmist days. My prospects are good. All this I gratefully attribute to the virtues of Pink Pills for Pale People, and now my story is done!" as the nursery ballad runs. If anybody should ask confirmation of this tale of mine let him write to me and I shall cheerfully furnish it. The Pink Pills were my rescuer and I'll be their friend and advocate while I live!"

The reporter finally took his leave of Dr. Verrinder, but not without the professor

entertaining him to another piano treat, a symphony played with faultless execution and soulful interpretation of the composer's thought.

Calling upon Messrs. A. E. Pilkey & Co., the well-known druggists, the reporter ascertained Dr. Williams' Pink Pills have an enormous sale in Chatham, and that from all quarters come glowing reports of the excellent results following their use. In fact, Dr. Williams' Pink Pills are recognized as one of the greatest modern medicines—a perfect blood builder and nerve restorer—curing such diseases as rheumatism, neuralgia, partial paralysis, locomotor ataxia, St. Vitus' dance, nervous headache, nervous prostration and the tired feeling resulting therefrom, diseases depending upon humors in the blood, such as scrofula, chronic erysipelas, etc. Pink Pills restore pale and sallow complexions to the glow of health, and are a specific for all the troubles peculiar to the female sex, while in the case of men they effect a radical cure in all cases arising from mental worry, overwork or excesses of whatever nature.

These Pills are manufactured by the Dr. Williams' Medicine Company, Schenectady, N. Y., and Brockville, Ont., and are sold in boxes (never in loose form by the dozen or hundred and the public are cautioned against numerous imitations sold in this shape) at 50 cents a box, or six boxes for \$2.50, and may be had of all druggists or direct by mail from Dr. Williams' Medicine Company from either address. The price at which these pills are sold make a course of treatment comparatively inexpensive as compared with other remedies or medical treatment.



This excellent variety is distinguished from all others by its large stiff stalks, as shown in the engraving, standing up like a tree without support of any kind. It bears abundantly of large, bright red tomatoes, very smooth and of fine flavor; it is extremely early and entirely free from rot; the leaves are very curly and of a dark green color, almost black, making the plant very ornamental in appearance as well as useful.

\$2,500 IN PRIZES.

\$700 for the largest Finch Tree Tomato grown in 1893, \$600 for 2d, \$500 for 3d, \$400 for 4th, and \$300 for the 5th. Conditions will be sent with this Collection.

THE MANSFIELD TOMATO
A mammoth variety, growing from 6 to 10 feet in height, the fruit is of large size and of excellent quality.

FINCH'S EVERGREEN CUCUMBER
A very handsome variety of superior quality, firm and crisp, of a dark green color, growing from 10 to 12 inches in length, and immensely productive.

GENUINE SURE-HEAD CABBAGE
Is all head and always sure to head. Very uniform in size, firm and fine in texture, excellent in quality, and a remarkable good keeper. Alfred Rose, of Penn Yan, N. Y., grew a head which weighed 64 1-2 pounds.

FINCH'S PERFECTION LETTUCE
The finest variety in the world. Does not head like some varieties, but forms huge, compact bush-like plants which are always very crisp and tender.

I will send a packet each of Finch's Tree Tomato, Mansfield Tomato, Evergreen Cucumber, Sure-head Cabbage and Perfection Lettuce with my illustrated Catalogue, also 7 Valuable Secrets, one of which cost \$300 to obtain. All by mail, postpaid, for only 25 cents in Silver or 30 cents in Stamps.

FIVE CINNAMON VINES FREE

This rapidly growing Vine, with its beautiful heart-shaped leaves, glossy green peculiar foliage, and delicate white blossoms, emitting a delicious cinnamon fragrance, will grow from 10 to 30 feet in a single season, and for covering Arbors, Screens or Verandas is without a rival. I will send 5 BULBS FREE, and postpaid, to every person sending me 25 cents for the above Tree Tomato Collection. The bulbs will produce 5 Beautiful Vines, exactly the same in every respect as I have been selling for One Dollar. Address plainly FRANK FINCH (Box S) CLYDE, N. Y.

Every person sending for the above Tree Tomato Collection will receive a certificate which will entitle them to 75 cents worth of Choice Seeds (their own selection from my list) which will be sent free of charge and postpaid. This is the greatest offer ever made by a RELIABLE firm in this or any other country.

Mention this paper when you write.

MENDING TISSUE

Repairs clothing better than needle and thread; Silk, Satin, Cotton and Woolen. Kid Gloves, Macintosh, Umbrellas, etc., all colors. Sample yard, 10c. Three yards, 25c. Twelve yards, 65c. Stamps taken. Agents wanted. Address STAYNER & CO., Providence, R. I.

Mention this paper when you write.

MY WIFE SAYS SHE CANNOT SEE HOW YOU DO IT FOR THE MONEY.
\$12 Buys a \$65.00 Improved Oxford Singer Sewing Machine; perfect working, reliable, finely finished, adapted to light and heavy work, with a complete set of the latest improved attachments FREE. Each machine is guaranteed for 5 years. Buy direct from our factory, and save dealers and agents profit. Send for FREE CATALOGUE. Mention paper. OXFORD MFG. CO., Dept. 24, CHICAGO, ILL.

FREE GRAYON PORTRAITS!

If you will send us within the next 30 days a photograph or a tintype of yourself, or any member of your family, living or dead, we will make you one of our enlarged life-like GRAYON PORTRAIT absolutely free of charge. This offer is made to introduce our artist portraits in your vicinity. Put your name and address back of photo, and send same to us. (Established in 1876.) References: Rev. T. De Witt Talmage, all newspaper publishers, Banks, and Express Companies of New York and Brooklyn, P. S.—We will forfeit \$100 to anyone sending us photo, and not receiving crayon picture free of charge. Address all letters to TANQUERAY PORTRAIT SOCIETY, 741 DeKalb Ave., Brooklyn, N. Y. Mention this paper when you answer advertisements.

Our Sunday Afternoon.

AWAITING THE END.

Never again to know
Health's warming, radiant glow;
Never again to feel the pulse's quickened beat,
The sinews pliant as steel, tempered in action's
heat,
The sweat of honest toil, bringing its respite
sweet;
But day and night, night and day,
To mark the body's slow decay,
And know that death scores one in the
game
(In sunshine and shadow all the same),
Every day, every day!

Never again to dream
Of all that may be, or seem,
In the sunlit future hid from the eager eyes of
youth;
Never to raise the lid of the precious casket of
truth;
Never to hope to delve in the field of thought,
forsooth;
But day and night, night and day,
To watch the hours waste away.
Still in the world and still not of it—
Still learning more and more to love it,
Every day, every day.

Never again to stand
In the thick of the battle grand—
In the God-led battle of life, the goodliest bat-
tle of all,
Where noble it were in the strife, manfully
fighting, to fall;
Never in action's ranks to answer the bugle-
call—
But day and night, night and day,
To passively sit and watch the fray,
With a skeleton specter always nigh—
Oh, worse than a thousand times to die,
Every day, every day!

KEEP YOUR OWN FIELD.

WHAT wonderful power is pos-
sessed by a man who has in
his hands seed with which to
sow a waiting field. His act
seems little, indeed, a mere
swinging forth of his hand with loosened
grasp, that the kernels of grain may
scatter through between his fingers and
fall. But there is a waiting and minister-
ing earth beneath the seed to receive
and nourish it. There are sunshine and
air and clouds above to minister to it.
There is a providence and a power of God
enlisted for its growth and maturity, and
the result is that the field becomes golden
with a precious harvest. It is simple,
human sowing which paints the brown
field golden, and fills the granaries and
spreads the tables of the people. But it is
human service joined onto divine service
and employing divinely furnished instru-
mentalities.

Every husbandman is a worker with God.
But there are more important fields to sow
than these, and more important seed to
cast abroad. "The seed is the Word of God."
Human minds and hearts are the soil in
which it is to be sown. Alas, that any such
soil should be hardened by the constant
tramp of worldliness and selfishness, giving
to Satan all the seed of truth. Alas, that
any should be stony, so shallow of earth as
to give only a lying promise of harvest.

FOUR BAD ACQUAINTANCES.

Among the many friendships that are
forced upon our young people, there are
four acquaintances to be especially avoided.
They are a quartet always to be found
around where there is anything of interest
going on, and so plausible, sociable and in-
teresting are they that they almost deceive
at times the very elect. Their names are:
"There's no Danger," "Only this Once,"
"Everybody Does It," "By and By." All
four, says a reverend writer, are cheats and
liars. They mean to cheat us out of heaven,
and they will do it if we listen to them.
The young especially should take pains to
avoid such acquaintances and should resent
the first overture looking to familiarity.
Let them be "diligent in business, fervent
in spirit, serving the Lord," and the quar-
tet will look elsewhere for a victim.
These spurious friends have no opportu-
nity to impose on one whose time and en-
ergies are wisely occupied, and whose heart
is fixed upon God.—*New York Christian
Herald.*

IS THIS YOUR CASE?

There are to-day thousands of professors
of religion who can give no better reasons
for points of faith which they hold than
that they were so instructed by their re-
ligious teachers. Let all such search the
Scriptures, and when they find their in-
struction in conflict with the plain word,
discard it, and obey God. Only so can you
"be ready always to give an answer to every
man that asketh you a reason of the hope
that is in you, with meekness and fear."

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CONFUCIANISM AND CHRISTIANITY.

Rev. George Owen, of Pekin, gives a re-
port of the way in which a Chinese preacher
contrasted Confucianism and the gospel.
"The world is like a great hospital filled
with the sick and dying. A Confucian
scholar enters with a pile of books under
his arm, and addressing the poor, sick folk,
tells them they are all born with good,
sound constitutions; that their maladies
are all self-inflicted, and then delivers a
learned lecture on the laws of health. He
has no medicine for the sick, no bandages
for broken limbs, no ointment for festering
sores and no salve for fast-failing eyes. He
is a professor of ethics, not a healer of dis-
ease; a scholar, not a doctor; and it is
difficult to see what he is doing in a hospital.
But a Christian teacher enters, and in sym-
pathetic tones tells the sick ones of a great
physician who heals all manner of diseases,
at whose touch the blind see, the deaf hear,
the lame walk, the lepers are cleansed and
the dead are raised. His healing is without
money and without price: 'Ask, and it
shall be given you; seek, and ye shall find;
knock, and it shall be opened unto you.'
Confucius was simply a moral teacher;
Christ a divine Savior."—*Messiah's Herald.*

IMPORTANCE OF SMALL DEEDS.

I remember of hearing of a person who
was always trying to do some great thing
for the Lord, and because he could not do a
great thing he never did anything. There
are a great many who would be willing to
do great things if they could come up and
have their names heralded through the
press. I heard of a man's dream in which
he imagined that when he died he was
taken by the angels to a beautiful temple.
After admiring it for a time he discovered
that one stone was missing. All finished,
but just one little stone left out. He said
to the angel, "Why is this stone left out?"
The angel replied, "That was left out for
you, but you wanted to do great things,
and so there was no room left for you." He
was startled and awoke, and resolved that
he would become a worker for God; and
that man always worked faithfully after
that.—*Moody.*

DO NOT DECEIVE THEM.

When the children are ill, do not tell
them that the medicine is "nice," when
you know that it is positively nauseous;
do not induce them to swallow the dose
under the pretence that it is "good." Chil-
dren never forget white lies of this sort,
and their confidence once shaken never
regains firmness. Better by far tell the
truth, that it is disagreeable, but necessary
to their health, and you desire them to
take it at once. Ten to one they will swal-
low it with half the trouble of coaxing and
worry of words, and love you better for
your firm and decided manner. Don't
teach the children by your example to tell
white lies to each other and to their neigh-
bors. Guard your lips and bridle your
tongue, if you desire to have the coming
generation truthful.

ENRICHING ONE'S LIFE.

If all our younger women realized, as we
gladly recognize that many of them do,
how much brighter and richer their lives
might be made by a generous literary diet,
they would early cultivate a taste for read-
ing, since this is an appetite that grows by
feeding, but is difficult to acquire in later
years. It is not best at first to undertake
heavy, exhaustive treatises upon subjects
of which one knows little and cares less,
since this method wearies and discourages
at the outset. Rather let one start with the
resolve to add daily to her stock of infor-
mation something fresh and valuable upon
subjects in which she is already interested,
to master thoroughly each new fact, and to
allow the interest which increased knowl-
edge is sure to awaken to carry her into
broader fields.

LOVE.

A gentleman who thought Christianity
merely a heap of puzzling problems said to
an old minister:
"That is a very strange verse in the ninth
chapter of the Epistle to the Romans,
'Jacob have I loved, but Esau have I
hated.'"
"Very strange," replied the minister;
"but what is it, sir, that you see most strange
about it?"
"Oh, that part, of course," said the gen-
tleman, "'Esau have I hated,' is certainly
very strange."
"Well, sir," said the old minister, "how
wonderfully we are made, and how dif-
ferently constituted. The strangest part of
all, too, is that He could ever have loved
Jacob."

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FRANCIS M. LIVINGSTON
JOHN KENDRICK BANGS
MARY LOWE DICKINSON

MARY HARTWELL CATHERWOOD MARY LOGAN TUCKER
and many others. The list is given as an indication of the variety and quality of the
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ing our work and helping yourself also. Remember these
pieces are carefully trimmed, and especially adapted to all
sorts of fancy art, and needle work. Many ladies sell tidies,
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will also send 8 pieces of elegant PLUSH FREE. They come in
Red, Blue, Green, Old Gold, etc.

If afflicted with
sore eyes use **Dr. Thompson's Eye-Water**

Selections.

LOVE CAME TO ME.

Love came to me one morning gray,
And begged that I would let him stay,
And warm his little hands and feet
Beside my fire. He smiled so sweet,
How could I tell the baby "nay?"

How could I send the child away,
Forth through the wintry wind to stray,
When from the cold and cheerless street
Love came to me?

Ah, no! I warmed the frosty fay,
But while against my breast he lay,
With twinkling eyes, the little cheat
Sent through my heart an arrow fleet,
And yet—think you I rue the day
Love came to me?
—Gertrude Morton, in *December Lippincott's*.

ANTIQUITY OF THE SAW.

THE saw is an instrument of high antiquity, its invention being attributed either to Dædalus or to his nephew Perdix, also called Talos, who, having found the jaw of a serpent and divided a piece of wood with it, was led to imitate the teeth in iron. In a bas-relief published by Winckelmann, Dædalus is represented holding a saw approaching very closely in form to the Egyptian saw. St. Jerome seems clearly to allude to the circular saw, which was probably used, as at present, in cutting veneers. There are also imitations of the use of the center bit, and even in the time of Cicero it was employed by thieves. Pliny mentions the use of the saw in ancient Belgium for cutting white building stone; some of the oolitic and cretaceous rocks are still treated in the same manner, both in that part of the continent and in the south of England. In this case Pliny must be understood to speak of a proper or toothed saw. The saw without teeth was then used just as it is now by the workers in marble, and the place of teeth was supplied, according to the hardness of the stone, either by emery or by various kinds of sand of inferior hardness. In this manner the ancient artificers were able to cut slabs of the hardest rocks, which consequently were adapted to receive the highest polish, such as granite, porphyry, lapis-lazuli and amethyst.

TIN-COVERED TABLES.

Housekeepers who have never had a tin-covered table for kitchen use, says the *New York Times*, are still unacquainted with one of the most valuable articles of domestic economy.

An ordinary kitchen table takes kindly to the metal cover. Fit a sheet of tin on the table and perforate the edges for tacking. The tin should cover the thickness of the board top, that it may be tacked on the under side of the table. A table so covered needs no scrubbing, is imperious to hot kettles, sheds grease as the proverbial duck's back does water, and in fact, cheers the heart of the kitchen maid more than anything on earth, except her wages and her "company." The woman who does her own work should not let another dawn find her without one. Said a wise family man: "Anything which simplifies the domestic labor of the household should be regarded as of distinct benefit to mankind," and he was speaking of a tin-covered kitchen table upon whose virtues his wife was dilating. A fair and cheap substitute is found by covering tables with the marbled cloth sold sometimes for wash-stands and children's bibs. It was Mephistopheles himself who designed kitchen tables out of soft pine boards. With their absorbent and spreading qualities, a tiny drop of grease is quickly converted into an unsightly blotch, and a hot handle or kettle sears its indelible mark across their surface.

POPULAR SIMILES.

As wet as a fish—as dry as a bone,
As live as a bird—as dead as a stone;
As plump as a partridge—as poor as a rat,
As strong as a horse—as weak as a cat;
As hard as a flint—as soft as a mole,
As white as a lily—as black as a coal;
As plain as a pike-staff—as rough as a bear,
As tight as a drum—as free as the air;
As heavy as lead—as light as a feather,
As steady as time—as uncertain as weather;
As hot as an oven—as cold as a frog,
As gay as a lark—as sick as a dog;
As slow as a tortoise—as swift as the wind,
As true as the gospel—as false as mankind;
As thin as a herring—as fat as a pig,
As proud as a peacock—as blithe as a grig;
As savage as tigers—as mild as a dove,
As stiff as a poker—as limp as a glove;
As blind as a bat—as deaf as a post,
As cool as a cucumber—as warm as toast.

A Literary Contest.

During the past few weeks the people of staid old England have been enjoying great fun. Rich and poor, men, women and children have had their wits sharpened by brushing up against other bright intellects in the Missing Word Contest.

217,000 persons were engaged in one of the recent contests. each of the successful contestants receiving about **\$470.00**

Above **\$800.00** was received by each successful person in another contest,

And in still another **\$280.00** was received by each.

Desiring to stimulate the minds of our subscribers, and also to afford a pleasing and novel means of entertainment, we present a

FARM AND FIRESIDE

MISSING WORD CONTEST

Below is printed a sentence from which one word is missing. The object of those entering the contest is to correctly supply the missing word, and each contestant should send a word that will fill out the sentence and complete the meaning. The sentence is taken from the work of a well-known author.

THIS IS THE SENTENCE:

"When passion has run away with a man, who knows where it will him?"
(The word is omitted here.)

The contest will close February 15, 1893, and the result announced in our issue of March 1st.

WHO MAY ENTER THE CONTEST?

Any subscriber to FARM AND FIRESIDE, or any one sending one year's subscription to FARM AND FIRESIDE, thus becoming a subscriber.

ENTRANCE FEE.

Each subscriber trying to supply the missing word must send 10 cents with the word. (Send either postal note, money order, or stamps. Or a silver dime can be safely mailed if wrapped in a small piece of paper and carefully sealed in a strong envelope.)

ONLY ONE WORD

May be entered by each subscriber in this contest. A subscriber is not allowed to send two or more words with two or more dimes.

HOW TO SEND THE WORD.

Cut out the "Missing Word Coupon" at the foot of this page, and plainly write the missing word and your name and address in the blank spaces. Do not write the whole sentence. Subscribers preferring not to cut their paper may write the word, together with their name and address, on a piece of paper or card about the size of the coupon, but nothing additional must be written on the same sheet. If written on the same sheet with a letter, the word will not be entered.

THE MONEY TO BE DIVIDED AMONG SUCCESSFUL CONTESTANTS.

The amount received from the entrance fees, after deducting one fifth for expenses, will be equally divided among those who correctly supply the missing word. The postage-stamps have to be disposed of at a loss, and it is estimated that one fifth of the receipts will be needed to make up this loss and attend to the correspondence, make remittances, etc., the publishers receiving no profits from the entrance fees.

THIS CONTEST WILL CLOSE FEBRUARY 15th,

And words received after that date will not be entered. The result will be announced in our issue of March 1st, which will publish the word, the full number of contestants, and the number of successful contestants, with their names also if we have space.

How It will Work.

Should 25,000 subscribers enter the contest the receipts would amount to \$2,500.00, making **\$2,000.00** to be divided among the successful ones.

The greater the number of contestants the larger the amount to be divided. If 50,000 persons enter, there will be **\$4,000.00** to divide among the successful contestants.

The legal authorities of the post-office department have decided that there could be no objection to a contest of this character.

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MISSING WORD COUPON.

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As the missing word in the contest ending February 15, 1893,
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POLISHING A STAINED FLOOR.

A highly-polished floor is effective. Beyond its artistic value it is economical. The secret is not hard to find. A tin of wax and a little system are the essentials. Do not be induced to use oil, as less trouble. In reality it is more. The oil will cling, and every atom of dust with it. No amount of polishing will carry off this evil effect of oil.

First have the floor washed with soda and hot water, then apply the soft wax lightly and evenly, rubbing with the grain. If you cannot afford a regular polisher, have a flat-iron covered with an old piece of carpet, a mop-handle tied on (to obviate stooping), and that weight thoroughly rubbed on your floor will make it shine like a mirror.

Once every day or two, instead of sweeping, have any dust taken up by a soft cloth wound around the broom, then the weight applied, and this will last for months. Should there be any scratching from the moving of furniture, or stain of any sort, there will be ample wax in the box to rub lightly over the injured place. It will rub in so smooth and dry that the whitest garment will not be soiled in passing over it, and its decorative effect in the room is by no means its least recommendation.

THE OPAL.

There are three varieties of this famous gem. Ranking first comes the oriental; as a second in value, the fire; and lastly, the common opal. The affection for this precious treasure, as expressed by the ancients, can hardly be believed. Nonnius, a Roman senator, absolutely preferred exile to parting with a brilliant opal of the size of a filbert, which was earnestly coveted by Marc Antony. An opal ranking as third among the finest in the world is described as having three longitudinal bands of the harlequin kind, from the uppermost of which rose perpendicularly the most resplendent flames. It measured nine inches by six.

In the last century a very round and brilliant opal was the property of the amateur Fleury. Another, said to be fascinatingly vivid, was owned by a noted French financier. These two were regarded as marvels of beauty among gems. On account of the thousand fissures of the stone, engraving is always difficult, and often impossible. A head of Sappho engraved upon a "presumable opal," an antique, has been highly valued and carefully studied by experts in gem-love. It is catalogued, so we read, among the treasures of a princely home.

THE ROMAN CALEND.

In the earliest calendars of the Jewish nation, as well as in those of the Egyptians, Greeks and Romans, no mention is made of the 1st of January. The year did not begin with that month, but with March; but when Numa Pompilius became emperor he added January and February. The first month he named in honor of the god Janus, the deity who was supposed to preside over doors and gates, and might be inferred to have something to do with the opening of the year. The Romans dedicated the whole month to their god because at that time the husbandmen in southern Italy began their labors in the fields and vineyards. The emperor also decreed that henceforth the first day, or the "calends" of January, should be celebrated as New-Year's day.

PERFUMES IN ANCIENT DAYS.

Old as the history of the world itself is that of the queen of flowers. The ancient Greeks and Romans reveled in roses; they were used lavishly at their feasts. In the time of the republic the people had their cups of Falernian wine swimming with blooms, and the Spartan soldiers, after the battle of Cirrha, refused to drink any wine that was not perfumed with roses, while at the regatta of Baire the whole surface of the Lucrine lake was strewn with flowers.

Nero, at his banqueting, showered rose-water upon his guests from an opening in the ceiling, and when honoring the house of a noble with his presence the host was compelled to have his fountains playing rose-water. In the repast itself roses found place in the form of a rose pudding.—*Philadelphia Times*.

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 220 Powers' Block, Rochester, N. Y.

Our Miscellany.

You may jocularly tell a man he's a lyre, but it isn't wise to harp on it too much.—*Boston Courier.*

THE calculation that as much as \$20,000,000 in United States currency has been lost or destroyed since 1862, when the government began to issue paper money, and that Uncle Sam is to that extent a winner, is doubtless within bounds. It is not strictly correct to say that Uncle Sam is to that extent ahead, however. It costs him a large sum to prepare his dies and to keep his printing-presses going.

Stops toothache instantly. DENT'S TOOTHACHE GUM. All druggists or send 15c. DENT & Co., Detroit, Mich.

If you think your boy is getting so much education that he will not be satisfied to stay on the farm, give him considerable more, and he will see that it is to his interest to stay there. To give a boy just enough education to make him a ten-dollar-a-week clerk, or a jack-lawyer, or a "plug-doctor," is a certain way of rendering him dissatisfied with hoeing corn or mauling rails for a living.—*Texas Live Stock and Farm Journal.*

A HOME IN THE SHENANDOAH VALLEY.

Convenient markets, good soil, pure water and excellent climate are advantages to be considered when looking up a home, business location, farm, etc. West Virginia, Maryland and the Shenandoah Valley, Virginia, affords these with many more advantages. No section of the United States offers superior opportunities, and persons seeking a new home should examine these States before deciding upon a location elsewhere. Improved farm lands adapted to stock raising, dairying, grain, grass, and fruit growing can be obtained at low prices and upon easy terms. Thriving towns invite the merchant, mechanic and business man. Abundance of coal, timber, ore, water power, etc. Free sites for manufacturers.

Persons desiring further information will be answered promptly and free of charge by M. V. Richards, Land and Immigration Agent, B. & O. R. R., Baltimore, Md.

BLUE-EYED INDIANS.

"Do you know that there are in Mexico several thousand 'Indians' who have fair skins, blue eyes and light hair?" asked Peyton Brown, as he put a fresh cigar into an apple-wood holder and turned the atmosphere of the Laclede rotunda a beautiful cerulean hue. "Well, it's a fact. The Mayas, inhabiting the Sierra Madre mountains in the lower part of Sonora, are supposed to be the descendants of the crew and passengers of a Swedish vessel wrecked on the Mexican coast long centuries before the birth of Columbus. They have a tradition that their ancestors 'came in a great canoe over the big salt water many hundreds of moons ago.' They have never been conquered by the Mexicans. They are nominally under the Mexican rule, but are in reality governed by their own chiefs. Whenever the Mexican government interferes with them, they take up arms, and they have got the best of every scrimmage thus far.

"The Yaquis are their neighbors, and these two war-like tribes have reciprocity reduced to a science. Whenever the government interferes with the Yaquis, the Mayas come to their assistance, and vice versa. Mexican troops cannot stand before the Mayas, or white Indians. They are the most desperate fighters on the North American continent. Like their neighbors, the Yaquis, they are mostly Catholics. Although quite primitive, almost savage, in their mode of life, the standard of morality is high. They live principally by the chase, but cultivate some corn and garden truck in the valleys. The men are large, well formed, and some of the women remarkably handsome blondes. They all retain traces of their Swedish ancestry, and the linguists say that their language evidenced a north European ancestry."—*St. Louis Globe-Democrat.*

TO GET SLEEP WHEN IT IS WANTED.

Bend the head forward so that the chin rests deeply on either collar-bone; close the eyes; let the head nod from side to side in the attitude into which the person falls naturally when dozing in a chair. This position cuts off the supply of blood to the brain. It is prescribed in some "rest-cures" instead of bromides. It is also useful to change the thoughts at any time when worried or perplexed by letting the head loll forward and shutting the eyes. "To lose themselves" for a few minutes in a busy day was the practice of an older generation. One was accustomed to sit, cane in hand, the stick planted on the floor and the forehead planted on the gold-headed stick; when the sleeper's hand became so relaxed that the cane fell to the floor, that was sufficient. It roused him, and he found himself all the fresher.

MAKES A BUSINESS OF GUESSING.

Mr. M. L. Woodbridge, who won the Boston Globe's \$5 a week for life for his close guess at the popular vote for president, has made a great record as a guesser, having also won a trip to Chicago, while he is a disputed winner of a trip to Europe. He guesses by wholesale when competing for a prize, using judgment and money freely. In the Globe's contest he bought 10,000 copies of the paper and made that number of different guesses.

FREE VALENTINES.

We have some sweet pretty valentines which we are giving away to all who would like to take our beautiful Magazine, *Comfort*, on trial for the next three months. They are the regular cupid's darts made up with lace and lithograph work, and we also include an assortment of comics. Send 6 cents to Morse & Co., Box 309, Augusta, Maine, for trial subscription and we mail valentine package free.

YOU DYE IN 30 MINUTES

Turkey red on cotton that won't freeze, boil or wash out. No other will do it. Package colors, 2 lbs., by mail 10 cts., 6, any color for wool or cotton, 40c. Big pay agents, write quick. Mention this paper. FRENCH DYE CO., VASSAR, MICH.

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YOUNG FOLKS. We will send, absolutely free, to any address, a beautiful sample of RELIANT ORNAMENTS with which you can easily make in your own town. Either sex. Address ALLING BROS., DURHAM, CONN.



[Trade Mark.]
DR. A. OWEN.

PERFECT
HEALTH
.. AND ..

HOW IT WAS
SECURED.

ACROSS THE PLAINS IN '52.

A Gold Miner Discovers Something More Precious Than Gold.

A Remedy for Rheumatism and Kidney Trouble Which Worked Wonders After Every Other Remedy, Including a "Sweat" Treatment with the Indians for a Year, Had Failed to Relieve.

A STATEMENT OF THE CASE.

CROOK CITY, S. D., Jan. 22, 1892.

The Owen Electric Belt and Appliance Co., Chicago, Ill.

Gentlemen:—I have been for some time considering the propriety of writing to you a few lines, relative to my experience with the Owen Electric Belt and Appliance obtained from you about eighteen (18) months ago. Justice to your company, and a desire on my part to make known to others who may be suffering from a similar affliction the relief I obtained from your institution, prompt me to send to you a voluntary statement of my case.

I am a gold miner by occupation, and have been for many years. I crossed the plains to California in 1852, and since then have been in most of the prominent mining camps in the then territories of Oregon, Washington, British Columbia, Idaho, Utah, Wyoming, and at present in Dakota. Leading the rough and exposed life incidental to my occupation, caused me to fall a victim to rheumatism which finally utterly prostrated me in Helena, Mont., in '65. I was under the best medical treatment obtainable in Montana for one year, with but slight improvement, and was finally advised to live among the Indians, and subject myself to their "sweat" treatment. This I did and remained with them about a year, obtaining only temporary relief.

Since that time I have been a chronic sufferer—suffering pain and torture indescribable almost continually. It would be needless to attempt to describe my sufferings. It must be sufficient to state that I suffered from rheumatism in its worst form. I had spent large sums of money, changed climate, visited Hot Springs, lived alternately in high and low altitudes, and employed the best medical advice obtainable, hoping to alleviate, if not cure my complaint. It was all to no purpose, and I had about despaired of ever recovering fully my shattered health, when my attention was called to the Owen Electric Belt by a fellow miner, Mr. J. C. Johnson, of Crook City, who was also suffering from rheumatism, and who claimed to have derived great benefit from a belt obtained from you. I had tried so many remedies that I was fairly discouraged and skeptical about obtaining relief from any source, but finally determined it was my duty to give your appliance a trial. I will also state right here that, since coming to the town, I have also suffered greatly from kidney disease.

At last I sent for one of your belts, and applied it carefully, according to the printed directions accompanying the same, and can now truthfully say, as I now do to you, that I am no longer troubled with my kidneys, that I am entirely free from rheumatism, and I consider my health as perfect. All this I consider is owing to your valuable and priceless Owen Electric Belt, and I feel I am only performing a duty and paying a deserved tribute to Dr. Owen in sending this unsolicited statement of my case for his information.

Sincerely your friend,
JOHN MULVANY,
Crook City, Lawrence Co., S. D.

Persons making inquiries from the writers of testimonials will please enclose self-addressed, stamped envelope to insure a prompt reply.

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contains fullest information, list of diseases, cut of belts and appliances, prices, sworn testimonials and portraits of people who have been cured, etc. Published in English, German, Swedish and Norwegian languages. This valuable catalogue or a treatise on rupture cured with Electric Truss will be sent to any address on receipt of six cents postage. The

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201 to 211 STATE ST., CHICAGO, ILL.

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A genuine Dueber, solid silverine watch to every reader of this paper. CUT THIS OUT and send it to us with your full name and address, and we will send you one of these elegant, richly jeweled, genuine Dueber silverine watches by express for examination; you examine it at the express office, and if you think it a bargain and equal to any \$15.00 watch you ever saw, pay our sample price \$2.98, and express charges and it is yours. With the watch we send a 90 year guarantee for the case and 10 years for the movement, also our printed guarantee that you can return the watch at anytime within one year if not satisfactory, and if you sell or cause the sale of six we will give you one free. Write at once as we shall send out samples for 60 days only. THE NATIONAL MFG. & IMPORTING CO., 334 Dearborn St., Chicago, Ill.

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A fine 14k gold plated watch to every reader of this paper. Cut this out and send it to us with your full name and address, and we will send you one of these elegant richly jeweled gold finished watches by express for examination, and if you think it is equal in appearance to any \$25.00 gold watch, pay our sample price, \$3.50, and it is yours. We send with the watch our guarantee that you can return it at any time within one year if not satisfactory, and if you sell or cause the sale of six we will give you one free. Write at once as we shall send out samples for sixty days only. THE NATIONAL MFG & IMPORTING CO., 334 Dearborn Street, CHICAGO, ILL.

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Mention this paper when you write.

Farm Cleanings.

POTATO CULTURE.

SOME people appear to think that the farmer who gives his attention to potato culture leads a dull and spiritless existence, but it is not so. The potato cultivator has his joys and his enthusiastic moments, as the specialist in any other branch of agriculture.

He gathers the potato balls, and plants the seed and the product again and again, till at last the year of maturity comes, and then begins the interesting part of the culture. Here are a dozen hills of potatoes, all different, the only potatoes of the kind in the world. With what curiosity does the digger turn them out of the hill, carefully examining, perhaps each one as he digs, to see the color, the shape and the general appearance.

Some are long and slender, others flat and wide, and others round like balls; one may be black or blue, another yellow, another red, but the greater number, probably, white. The digging is one "supreme moment," and the eating, or testing, another.

It is something unusual, yes, delightful, to have placed before you a dozen different kinds of potatoes, and to undertake to decide upon their merits. Some are mealy and some are soggy, and some taste like sunburnt potatoes, and are quickly discarded; and again, some are bitter, with a combination of flavors that is disagreeable.

Out of the dozen may come not one good one; that is, not one of sufficient merit to cultivate; and also, there may be several of extraordinary value. If there be one of great value, the grower is repaid for all labor. When potato balls are planted every year, the farmer has new potatoes coming on every year, and looks forward every year to a "new potato."

When I was a boy, I thought that the man who invented—that is, originated—the Davis Seedling potato deserved a monument as much, if not more, than some who had monuments. What a potato that was! A great, lubbly, irregular-shaped fellow, but with flesh of exceeding fineness. But we had to abandon the Davis Seedling, for it was a late potato, and something earlier must be substituted, for that striped-backed rascal, with all his friends and relatives, began to march northward and take everything in his course in the shape of potato herbage, and we could not spend all the summer fighting him and playing with deadly poisons.

Then came to our relief the Early Rose—as good a potato as the world ever saw. What a factor in our well-being, health, domestic economy and financial budget that potato has been. The man who develops a new potato works not only for himself, but for others. What could we do without potatoes? Would we not part with some other things before we would give up potatoes? Ralph Waldo Emerson once remarked: "What is dinner without pie?" We might ask, with more sense and reason, what is dinner, especially a "boiled dinner," without potatoes?

Let everyone keep in mind that the potato is one of our strongholds, a bulwark of our strength and prosperity, and that anything that tends to perfect the potato adds to the general good.

GEORGE APPLETON.

FLORAL QUERIES.

ANSWERS BY GEO. W. PARK, LIBONIA, PA.

Lice on Chrysanthemums.—Mrs. C. A. H., Henry county, Ind., writes: "What is the cause of small, green lice on our emeralds, or white chrysanthemums? What will kill them? They get on the buds and in the center of the flowers and seem to suck the substance from the flowers so that they will scarcely open, and when they do open they are not full and perfect."

ANSWER:—An emulsion made from suds of home-made soap and kerosene-oil is a sure remedy for the pests referred to. Make the suds rather strong, then add two or three tablespoonfuls of kerosene-oil to each gallon of suds. After thoroughly mixing, apply the material with a syringe, using a fine nose. After awhile syringe with clean water. A few such applications will effectually eradicate the pest. There is no particular cause for these insects appearing. They are usually worse in a dry season. When they once get a start upon the plants they increase rapidly if the conditions are favorable, and in a short time work injury to the plant.

Geraniums, Roses and Lilies.—E. A. W., Lewiston, Mont., wishes to know why the leaves of her geraniums turn yellow; also, how to care for roses and lilies.

ANSWER:—The leaves of geraniums will turn yellow and drop off when the plant becomes pot-bound, and the sun is allowed to shine directly upon the sides of the pot. The same

effect is also caused by neglect to water regularly as the plant needs water, as well as by watering too copiously, or by clogged drainage. The inquirer must decide from these statements what the plant needs and give treatment accordingly. The treatment of roses is very simple. Make the soil deep, rich and fine, and set the plants early in the spring, as soon as danger from freezing is past. Frost will not hurt the plants, if not too severe or too often repeated. Stir frequently after planting, till warm weather comes, then cover the bed with a coating of old stable manure. This will keep the roots cool and enrich the ground. In autumn stir the soil again, working the manure in. In December, as soon as the ground freezes up, cover the bed with stable litter and throw over the plants a good protection of evergreen boughs. Unless the roses are of very tender kinds, or the climate very cold, they will come out all right in the spring. But do not remove the covering early. Wait till after the Easter flowers bloom. Early spring frosts or freezings are very injurious to the plants. If this protection is not sufficient, place a board frame around the plants, fill with dry leaves, then cover with boards to turn water. This will keep the most tender of roses in a cold climate if judiciously applied. The best lilies for the amateur for outdoor beds are *L. candidum*, *L. lancifolium*, *L. tigrinum* and *L. elegans*. These are all perfectly hardy. *L. Canadense* and some other native lilies also do well. Drain the bed well, and do not use fresh manure in enriching it. Set the bulbs about eight inches deep. These lilies are all perfectly hardy, and once planted will take care of themselves.

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Recent Publications.

EXPERIMENT STATION BULLETINS.

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ALABAMA.—(Auburn) Bulletin No. 39, November, 1892. Wheat.

CALIFORNIA.—(Berkeley) Bulletin No. 99. Root-knot on fruit-trees and vines. Bulletin No. 98. Distribution of seeds and plants.

LOUISIANA.—(Baton Rouge) Fourth annual report, for 1891.

MAINE.—(Orono) Annual report for 1892. Part I.

MASSACHUSETTS.—(Amherst) Bulletin No. 45, November, 1892. On fodder articles and fodder supplies.

NEW JERSEY.—(New Brunswick) Bulletin No. 89. Analyses and valuations of complete fertilizers and ground bone.

NEW YORK.—(Cornell Station, Ithaca) Bulletin No. 41. On the comparative merits of steam and hot water for greenhouse heating. Bulletin No. 44. Entomological division. The pear-tree psylla. Bulletin No. 45. Tomatoes. Bulletin No. 46. Mulberries.

ONTARIO.—(Agricultural College Station, Guelph) Bulletin No. 80. Effect of food on milk and butter. Bulletin No. 81. Bees in relation to fruit. Bulletin No. 82. Corn ensilage for making beef. Bulletin No. 83. Feeding shorn and unshorn lambs in winter and feeding lambs on different rations. (Central Experimental Farm, Ottawa) Bulletin No. 15. Experiments in the fattening of swine. Bulletin No. 16. Experiments in feeding steers.

QUEBEC.—(St. Hyacinth) Second annual report.

TENNESSEE.—(Knoxville) Bulletin No. 4, Vol. V., November, 1892. Experiments with fruit-trees and vegetables.

UTAH.—(Logan) Bulletin No. 19. Feeding ensilage versus dry food.

WEST VIRGINIA.—(Morgantown) Bulletin No. 24. Flora of West Virginia. Preliminary catalogue.

WYOMING.—(Laramie) Bulletin No. 8, October, 1892. Irrigation and duty of water.

U. S. DEPARTMENT OF AGRICULTURE.—(Washington, D. C.) Office of Experiment Stations. Experiment Station Record, October and November, 1892, and index to Volume III. Weather Bureau. Observations and experiments on the fluctuations in the level and rate of movement of ground water.

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turning brown.
'Twas morning, she sat sighing;
Bedewed with dismal crying
She puckered up her forehead
in a frown.
Floors sadly needed scrubbing,
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Her castles in the air had
toppled down.

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This cut represents our **NEW COMBINED CANE NO. 3. AND CAMP STOOL.** The Greatest Seller of the age. A nice Cane and can be changed to a seat in half a minute. Something everybody wants, and if you want to make money secure an agency at once. Sample will be sent you by mail, postpaid, on receipt of price, \$2.00. This ad. will appear but once. Write your name, town and state plain. Address **CANE AND CAMP STOOL NOVELTY CO., LTD., Pleasantville, Venango Co., Pa.**



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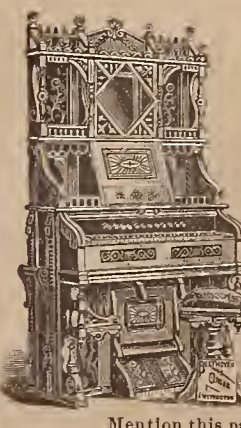
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A clergyman, after years of suffering, from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self-addressed stamped envelope to Prof. J. A. Lawrence, 88 Warren street, New York, will receive the recipe free of charge.

AGENTS WANTED Copies sent postpaid on receipt of price. One agent sold 255 copies in 3 days another 318 in 5 days, another 1926 in Troy in 2 weeks. Send 25c for agents' terms and sample copy bound in limp cloth; 50c for sample in library style. Complete agents outfit, 43c, postpaid. Satisfaction guaranteed or money refunded. **LARK & LEE, 263 Wabash Ave., Chicago**

price-lists and terms. **FINEST CLOTHES LINE CO.**
No. 168 Hermon Street, Worcester, Mass.

If afflicted with **Dr. Thompson's Eye Water**

Dr. Thompson's Eye-Water

Gleanings.

KEEPING THE CHILDREN AT HOME.

PHILANTHROPISTS and teachers and moralists of all sorts never seem tired of asking the question, "What shall we do with the children?" but all the same they do not seem to have worked out a very satisfactory solution to the problem. It is a matter of doubt if any means can be adopted which will secure this end, until parents become a little more considerate of the feelings and wishes of their children. Youngsters must be amused, and if they cannot find amusement at home, they are absolutely certain to seek it elsewhere.

Parents should therefore provide every means within their power to interest the young, and should not only do this, but should make it a point to furnish them a place where they may enjoy their possessions to their heart's content. In building or fitting up a house, it would add but little to the cost to set apart a room or even build one, where all the toys, games and rigging in which children delight could be safely housed and in nobody's way. This is much better than a continual growling because Tommie's bicycle has to be kept in the hall and Jennie's hoops and croquet-set are under the table.

When children want to play, it is no trifling task for them to go up-stairs or down cellar or in some out-of-the-way cupboard or closet, move a quantity of other things, and little by little hunt out their amusements; then have to crowd somebody out of place in order to arrange them, either in the kitchen, dining or sitting room; then be subject to a constant interruption, in case any one comes in.

It is easy to make the plea that a room for such things would cost too much; but when one comes to consider how much a child is worth and how much it costs, later in life, to get him out of the evil ways in which home neglect has driven him, the balance is not very difficult to strike.

The markets are full of toys, games, amusements and pleasures, and while they cost something in the way of cash outlay, their value is in many instances above all computation; and the few dollars expended in providing wholesome pleasures will draw more than compound interest when the boy arrives at man's estate with quiet, intelligent, studious habits and reasonably good morals. These he rarely acquires on the street or in the saloon, to which in many cases he is driven by the lack of entertainment under his own roof.

TREASURES OF THE BIBLE.

The philosophy of the Bible stands immeasurably above all that the mind of man has been able to conceive. We admire the wealth of thought and the keen sagacity of Aristotles, Plato, Socrates, Newton, Locke, Hegel, Bacon and others, but their creations pale before the splendor of biblical wisdom. Sir Isaac Newton said, "I consider the word of God the most exalted philosophy"; and Coleridge, "The Bible conducts me to a much greater depth of my Ego than any other book"—that is, that the Bible explained most clearly to him his own existence. Rousseau, who was certainly no hero of belief, once wrote: "When we read the works of our philosophers, in spite of all their pomp of style, how poor, how despicable they are in comparison with Holy Writ."

Another defender of biblical philosophy is Carlyle. He treasured the Bible as the most valuable book, and was accustomed to exclaim, "Oh, noble book! Oh, book for all mankind!" He particularly preferred the book of Job, on account of its wonderful philosophy.

If the great thinkers know the Bible so well, what an example of spiritual poverty is he who is ashamed to read this book of books, or to allow himself to be supposed capable of enjoying it.—*Public Opinion.*

CHANGES IN JAPAN.

As a proof of the manner in which the civilization of the West is seizing hold on Japan and all that is Japanese it is stated that in a private mission school in the town of Kioto there are four hundred Japanese women. Ten years ago the fathers of these girls looked upon them as slaves, or, at best, upper servants. Now they strain every nerve to give them a liberal education.

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This month we shall offer 10,000 beautiful watches such as are sold in first-class Jewelry Stores for nearly three times the price we ask. You will never have such a chance again as long as you live. Any of these styles are made in both Gent's and Ladies' sizes.



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Four plated and burnished by hand. The only watch of its kind ever shown in this country. You can sell it for four times the price; remember you can return the watch any time within one year, and receive your money back if you find it otherwise than represented. They are made in both Ladies' and Gents' sizes.



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The active principle of which is a new discovery by a great French chemist, which acts on the follicle; where the follicle is destroyed the hair cannot grow. This marvelous preparation masters the stubborn growth, also the growth which is just appearing; and its action is so delicate it may be applied to the face of a child without injury to the skin. Quick, no pain, no soreness. Use **LAVENDER PASTE** and you will be entirely and delightfully relieved forever. It is put up in a French cut-glass toilet bottle, with glass stopper.

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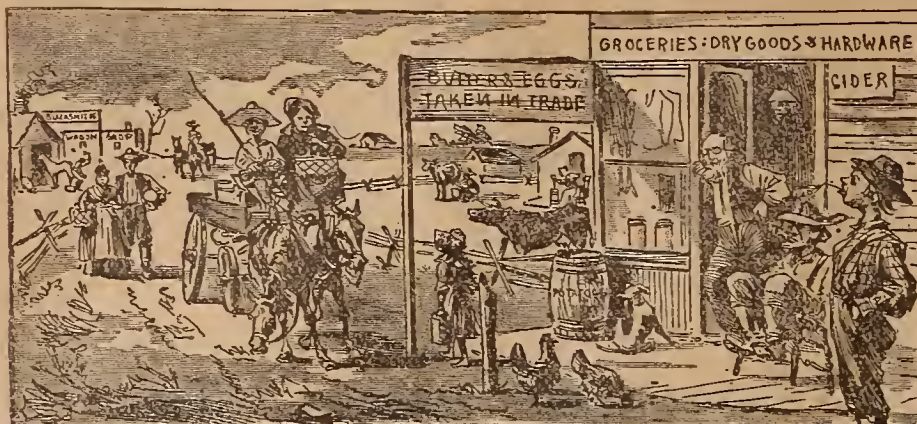
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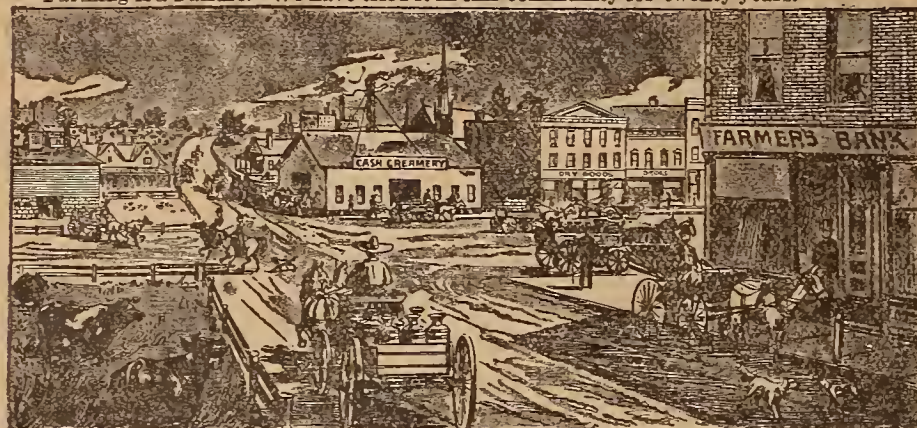
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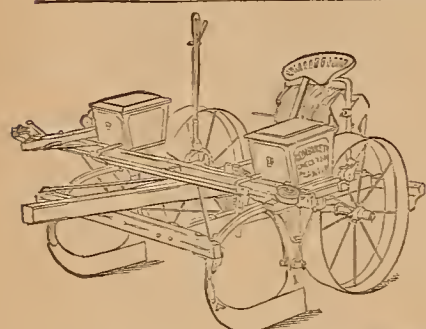
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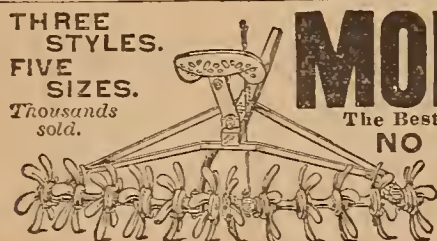


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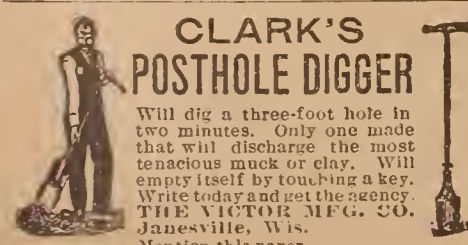
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 Warranted to cut green bones,
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MONEY REFUNDED.
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 Steel wire galvanized. Best
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'Clock Spring Blade. Soft as a Brush.
 Fits Every Curve.
 The Only Perfect
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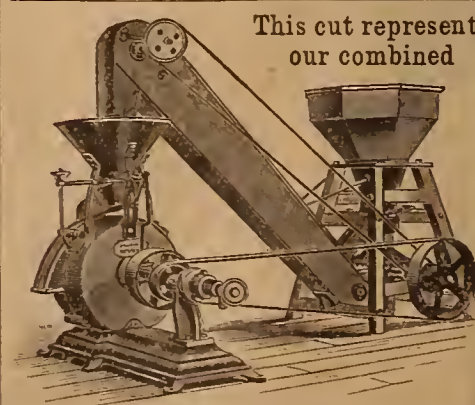
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 evenly, accurately,
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VOL. XVI. NO. 10.

FEBRUARY 15, 1893.

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unrest, and are seriously discussing
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Britain?" a contributor to the *Farm and
Home* (England) says:

"Were we, in considering this question, to
confine our attentions to any one year, we
should probably arrive at an erroneous con-
clusion. Such a course at the present time
would restrict our horizon to the confines of
1892, which year we should say at once was
one of the worst, so far as prices are concerned,
which the farmers of England have ever ex-
perienced. We might say, indeed, that it was
more than merely one of the worst, and that
it stands alone, so far, in its unmatched bad-
ness. There have, of course, been years in
which the weather has committed far more
havoc with the crop, as well as the standing
crops—when, indeed, the condition of the
grain and straw has been completely
destroyed—but no one can call to mind a year
in which the yield of grain was so disappoint-
ing and the price of it so low. It has been
one of those deceiving years, when the crops
looked bigger than they were—a year of wet
and want of sun, when vegetation swells out
into bulk, but is wanting in substance; when
the crops fill the eye more than the bushel,
and there is the inevitable shrinkage in the
field and the rick. This, therefore, is not a
year which we can fairly isolate from its pre-
decessors, and it has a character so exceptional,
not to say unique, that we cannot venture to
discount the future by expecting its successors
to resemble it. For the present, however,
grain raising in Great Britain is in a state
which must be described as gloomy, and even
disastrous.

"The typical—or what were once regarded as
the typical—wheat and bean soils of England
are the strong marls and stiff clays which are
found in many counties, especially in those of
the southeastern part of the country. Essex
is singularly unlucky in possessing more than
her fair proportion of the heavy, sticky, re-
tentive soils which are so costly to work, and
so commonly disappointing. These soils,
indeed, are a thorn in the side of him who has
them to cultivate, save in hot and dry seasons,
where summer fallows are practicable. For
wheat-growing purposes they would be excel-
lent, if only they had an American climate
upon them; but in the lachrymose climate of
the British islands, it is only once in a while
they can be cleaned and brought to a state of
communion which is fit for the reception of
seed.

"For many years past it has been found im-
possible to cultivate heavy clays to a profit,
and an immense area has gone out of cultiva-
tion since the seventies came to an end. To
lay them down to grass was the best thing to
do, as a precaution in view of low prices of
wheat—lay them down, and let them lie,
until the time comes, as come it must, when
they will again grow wheat to advantage.
Laid down in a cleanly condition, they will
accumulate a store of fertility which will be
useful in the inevitable future. Unfortun-
ately, however, it is only too true that a great

deal of such land has not been laid down at
all—has simply been allowed to lay itself
down, and it is of very little use as it is; weeds,
weeds, nothing but weeds on much of it.
Under the hot and constant sunshine of the
United States, the heavy soils are broken up
roughly, the weeds wither and die, and the
heated air permeates the land thoroughly;
but this is seldom the case in England."

Undoubtedly, this is a fair statement of
the present condition of wheat growing in
England. It is not without sufficient
cause that many farmers are demanding
for their protection against foreign compe-
tition an import tax on breadstuffs.

IN a personal letter, the editor of the
Wayne County Herald solemnly assures
us that Wayne county is not in any way
trying to evade the payment of the agri-
cultural experiment station bonds. He
says:

"Nearly all the taxpayers [a] have paid
their experiment-farm tax in the face of
the fact that one decision of the supreme
court is [b] against the special law under
which the bonds were issued. Wayne
county wants to pay those bonds, and is
doing everything that can be done to that
end, and in all justice and fairness, you
should put our county in a proper light
before your readers."

The entire responsibility for the litigation
that has tangled the affairs of the station,
greatly to the detriment of its work for the
agricultural interests of the whole state,
lies inside of Wayne county, on some of her
own citizens, few or many, as may be.
This litigation, which may end with non-
payment of the bonds, was commenced in
Wayne, in the name of a citizen of Wayne,
and for the possible benefit solely of
Wayne's taxpayers. In face of this it did
look, as we said, as if Wayne was trying to
get out of fulfilling her pledge. That was
the appearance of the situation from an
outside point of view.

The farmers of Ohio will be pleased to
hear that, after all, Wayne is really doing
the very best she can. Although she has
been unable, in the past, to suppress a few
citizens whose obstructive litigation has
interfered greatly with the station work,
she is going to provide for the redemption
of the bonds, which is, as we said, the
shortest way out.

However, Wayne's pledge will be ful-
filled when she has paid all the bonds.
[a] They have paid enough for the first in-
stallment only of the bonds. There is a
ten-year period for this tax. [b] The de-
cision of the supreme court is not against
the whole removal act. The taxing clause
only was declared unconstitutional. There-
fore, can a single taxpayer of Wayne
county be compelled to pay his assessments
of the experiment-farm tax if he does not
choose to do so voluntarily?

After the \$26,000 has been released from
the state treasury and appropriations for
further equipment have been made by the
legislature, and the station has been per-
manently located by the erection of build-
ings on the farm, will the voluntary pay-
ment of this tax be continued? Will not
many more then refuse than now do?
What provision has been made for this
contingency?

By a vote of forty to twenty-nine the
senate has passed the anti-option
bill. It now goes back to the house
for action on the senate amendments. The
bill passed the house by a large majority
last June, but the friends of the measure
must keep up their vigorous fight, as there
is some danger that it may yet be defeated
by being shelved in a house committee.

THE congressional committee which
investigated the Reading coal com-
bination has made a unanimous
report, which contains a complete expose
of the methods by which the production,
distribution and selling price of anthracite
is absolutely controlled by this merciless
monopoly.

First. That each transportation company
directly owning coal-producing lands and
each affiliated coal-producing company sends
a representative to meetings which for years
have occurred monthly. These meetings are
informal, so far as the committee could ascer-
tain. They are not convened in pursuance of
any resolution or agreement, but were the
result of a tacit understanding between the
parties in interest. No minutes of those meet-
ings, so far as ascertained, are kept, and the
proceedings are not of record or made known
to the public. However, the fact is incontro-
vertibly true that at those meetings the
monthly output and price of coal are deter-
mined.

Second. That in pursuance of a consensus
of opinion or understanding arrived at in
those monthly meetings, the transportation
companies and the coal-producing companies
act in concert and conform thereto.

Third. That when it appears that a recal-
citrant owner of a colliery declines to conform
the output of his mine to the conclusion
arrived at in their monthly meetings, he is
forced to act in conformity by the transporta-
tion companies, who withhold from him cars
which are necessary to transport an excess of
output over the proportion which it was con-
templated he would furnish to the market at
such monthly meetings.

Fourth. That these monthly meetings ex-
plain why the output of coal is annually
about ten million tons less than the capacity
of the mines. It is impossible to say what
amount of anthracite coal it would take to
supply the market if the price was lower, but
the evidence establishes that the public will
not take the entire possible output at the
price determined on at these monthly meet-
ings. The natural law of supply and demand,
in the judgment of the committee, does not
control the output; but at these monthly con-
ferences it is estimated that the demand will
be at the price fixed, and in this way the
demand, as well as the price is, in a large
measure, determined. The transportation
companies are constantly confronted by a dis-
position on the part of the public to substitute
other fuel for anthracite coal, and the question
to be determined at these monthly meetings
is how much the public will pay without
destroying the market.

Fifth. That this result is brought about, not
by the coal-producers, but by the transporta-
tion companies who control them. The inde-
pendent and individual owner of a colliery is
practically at the mercy of the railroads. The
freight agents who determine or fix the sched-
ule rates of the several railroad companies are
the men who practically control the situation.
Where the railroad company owns the coal-
producing lands or the stock in an affiliated
company, it makes no difference whether or
not the business of mining pays a profit or
freight yields a satisfactory return to it.

IN a recent number of the *Literary North-
west*, Mrs. E. A. Newport has an inter-
esting article on "Opening the World's
Fair on Sunday." She raises a new point
in the discussion of the question, as fol-
lows:

"I am quite unable to comprehend the
clamor for opening the exposition on Sun-
day, when not one word is heard, nor one
voice raised in demand, that it shall be
opened during the evenings of the week.
It is proposed to close the fair every eve-
ning at seven o'clock. If the plea is a
valid one that the exhibition shall be kept
open on Sunday in order that the masses
of the people may be occupied, and kept
away from the temptations of the great city,
is there not much more force in the
demand for keeping the exhibition open in

the evenings, when the evil enticements
and allurements are multiplied a thousand
times? And if the desire to furnish oppor-
tunity for the workman to see the exhibi-
tion is a sincere one on the part of the
management, can it not be accomplished
by opening the great show to him six
nights in the week instead of on Sunday?
Statistics prove that four times the num-
ber visit such an exhibition in the eve-
ning than during the day, thus increasing
the revenue sufficiently to justify the
necessary additional expense."

ONE of the strongest arguments in
favor of the immediate abolition of
all farm fences not absolutely needed
is the fact that they are veritable entomo-
logical nurseries and harbors of vast
numbers of injurious insects. Professor
Webster, entomologist of the Ohio exper-
iment station, says:

"I wonder if the country horticulturist
ever stops to consider what an important
factor country fences may be in the prob-
lem of success in his calling. Can you
compute the number of raspberry saw-
flies, cane-borers, root-borers or leaf-
rollers each half mile of old worm rail
fence, with its wide margin of brambles on
each side, will produce and send out over
the surrounding country? What clouds of
rust and fungus spores are carried away
over miles of country by the winds?
Growing up alongside of these fences are
many trees of the wild cherry, and now
that the leaves are off, there is hardly one
of these that is not decorated with the
abandoned webs of the tent caterpillar and
fall web-worm. Do you suppose these will
all remain where they originated? Not a
bit of it; they will crawl or fly forth in
every direction to find new colonies."

Away with all unnecessary fences.

WHILE the country is calmly discuss-
ing the probabilities of Canadian
annexation, the question of annex-
ing the Sandwich islands is suddenly
thrust upon it. A revolution deposed the
queen and placed a provisional government
in charge of public affairs. One of the first
acts of this provisional government is the
sending of a commission to Washington to
ask the United States to annex the Sand-
wich islands, not only for the protection
of the commercial interests of the white
residents, but for the welfare of all the peo-
ple there. The question is exciting unusual
interest throughout the country, for it has
an important bearing on the future policy
of the United States regarding its foreign
commerce.

It is said that England will object. If
England has any objections to the annex-
ation of the Sandwich islands to the United
States, will she not have a thousand-fold
more objections to the political union of
Canada with the United States? Her atti-
tude on the latter question may be revealed
by her action on the former.

IT was through a lack of honesty, not of
money, that the Panama canal was not
completed. Of the magnificent sum
raised for its construction it is estimated
that one third was honestly expended, one
third squandered and one third stolen.
Had the whole amount, over \$262,000,000,
been economically and legitimately ex-
pended in the actual work of construction,
the canal would have been completed, or
so nearly that the balance required would
easily have been raised.

The Panama canal scandal has been fitly
named the greatest scandal of modern
times.

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Our Farm.

AN INTERVIEW WITH THE FATHER OF THE GRANGE.

To your right as you pace up the proud sweep of asphaltum that leads to the main building of the agricultural department, situated in an angle of the conservatories, is a small, brick

building, but little over fifteen feet square, that contains the office and file-rooms of the Hon. Wm. Saunders, horticulturist, landscape gardener and superintendent of gardens and grounds, United States department of agriculture. A venerable-looking patriarch is he, but with a frame that is hale and strong despite his seventy years of active existence.

"Yes," he said, in answer to my question as I called one bright, crisp morning lately, "I have been with the

"DEPARTMENT OF AGRICULTURE

"Ever since its origin as a department back in 1862. Prior to that time the department of the interior had had a few clerks assigned to the duty of answering the correspondence that sprang up in an irregular way, on matters pertaining to agriculture. This query and answer business grew to such an extent, and the demand from the farming classes for a bureau that would relate wholly to agriculture, so pronounced, that in May, 1862, Congress established the department of agriculture, the act providing for its existence declaring that its purpose was to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture, in the most general and comprehensive sense of that word, and to procure, propagate and distribute among the people new and valuable seeds and plants.

"President Lincoln having been given authority to put the department in operation, selected as his commissioner a shrewd Pennsylvania farmer by the name of Newton. He had but little education, but he possessed an abundance of what is sometimes called 'horse sense.' Mr. Lincoln was attracted to him, undoubtedly, by his shrewd, quaint talk, but the new commissioner had but little appreciation of the duties and scope of the new office.

"At that time I was engaged extensively

in landscape gardening and in the publication of a journal called the *Horticulturist*, with headquarters at Germantown, Pa. The *Horticulturist* was a monthly periodical, and was the first journal on that subject published, I think, in this country. The work of overseeing the publication of the paper and attending to my duties as a landscape gardener kept my time well occupied. One day soon after the organization of the new department I got a letter from Commissioner Newton, asking me to meet him in Washington. I did so, and the end of the conference was that I engaged myself to spend one week out of every four in this city, and personally oversee the laying out of some public grounds, and assist in a practical way in starting the machinery of the department. I soon found that it would require all my time, and made arrangements with the commissioner to that effect. A few acres of ground were purchased on 4½ street, near Missouri avenue, and in a very humble way, for our appropriation was not large, the work of gathering matter for the agriculturists of the land was begun. The different divisions of the department were created as there was a demand for them. For instance, the commissioner came to me one day and said that some Iowa men were urging the appointment of a certain man to a position as chemist; he said that so far as he was concerned he couldn't see that we had any work suited to such a man, but I told him that we could use him right along, and mentioned as an example the subject of grapes, in which we were making a special study, would be materially benefited in the report, if we could include an analysis of certain varieties as to their wine-growing qualities, etc. The chemist was engaged, and now our chemical division is one of the most important we have. The microscopical division had a somewhat similar origin, for in those days, you must remember, the microscope was but little used in agricultural investigations. The agitation produced by the rapid destruction of our forests produced our forestry division. Little by little have we grown, fighting always for increased appropriations, that we might widen our field. The country at

"No, the grange movement began in the year 1867, and the heyday of its success was in 1873-74. The first grange in this country was organized in a little office on the old agricultural grounds down in 4½ street. A few of us interested in agriculture got together, not with the idea of eventually organizing the farming element of the country, but simply to exchange ideas on the subject of land cultivation. Why, we never had any idea of the movement becoming national in its character, but somehow the idea grew. Being here at the capital, the scheme, through the press, got circulation, and almost before we were aware of it, we were receiving letters asking for information on the subject. A small lecture bureau grew up, and through the aid of Mr. Bryaut, a public-spirited citizen, then living on Thomas circle, we began the publication of matter pertinent to the subject. A national organization was the natural outcome of all this. For several years I was at the head of the order, holding the office of master of the national grange. In the West we grew rapidly, Missouri being at one time the banner state. In nearly every community of the central states, the Patrons of Husbandry had an organization. It was popular because, while it made increase of knowledge and exchange of ideas on agricultural subjects its primary object, in addition it encouraged social intercourse and was the means of improving the social relations in many neighborhoods.

"The movement grew like wildfire. As the national head, I was constantly in receipt of letters asking charters. We charged fifteen dollars apiece for them, and you can have some idea of the demand for them when I say that I remember one day that our mail contained fifteen hundred dollars in charter money. Financially, we were in excellent condition, having about forty thousand dollars to our credit in one of the New York banks. It requires considerable money to run the order, one of the provisions of the constitution being that all the delegates to the sessions of the national grange shall have their expenses paid from the general fund. When you take into consideration the large number of delegates and the great number

put for the year. After some correspondence we finally took all they could produce at ninety dollars a machine. These were retailed to the members at cost, plus the bill for transportation, and the Missouri farmer gained sixty dollars by the transaction.

"Another instance: We were informed that a well-known sewing-machine company in Chicago was about to make an assignment. The machines had been on the market at about seventy-five dollars. We employed some skillful mechanics to examine the stock, and then bought them so low that we could sell them to members at about forty dollars apiece.

"Such deals as these increased our following, and could they have been kept up, and all men elected to responsible positions in the order been honest, we would be as flourishing to-day as we were then.

"One or two of our charitable deeds are worthy of mention. During the prevalence of a grasshopper plague in Kansas, the national grange received word that many farmers, including some of our members, were suffering for the necessities of life. As grand master, I wrote to the different state masters, asking consent to send five thousand dollars to the stricken district. Every state master, with the possible exception of one man, wired me to go ahead, and the relief was immediately forwarded. At another time, when an appeal was sent out asking help for people living in Louisiana and Mississippi, who had been flooded out by an overflow of the great river, we loaded a train—that had been kindly placed at our disposal by one of the railroads—with provisions, and sent it, covered with banners, into the region of the sufferers.

"The grange movement at that time was in the zenith of its power. The metropolitan press devoted columns to it. I remember that the New York *Herald* sent a man to interview me on the order, and I was never so impressed with the ability of the newspaper reporter to reproduce an interview as at this time. The *Herald* kindly gave a page to the subject, and on reading it I found that this wonderful fellow had not only given every idea I had presented, but

actually in my own language to a word, and throughout the entire talk I did not see that he took a note.

"In 1875 I withdrew from further active work in the Patrons of Husbandry. At that time I was president of the 'Belt Line' street-car system of this city, and in addition, President Graut had placed me in charge of the government agricultural exhibit at the centennial exposition. This occupied my time fully, and much to my regret, I ceased official connection with the order. Since then it has passed through many vicissitudes, and although never again reaching the palmy position it held in the early seventies, it is still a sturdy agricultural order, meting out much good to its many members." G. U.

Washington, D. C.

FARMERS' AND BREEDERS' INSTITUTE.

THE SECOND DAY'S SESSION.

The second day's session of the Farmers' and Breeders' Institute opened in the city hall at Columbus with a paper by Franklin P. Stump, a graduate of the school of agriculture of the Ohio state university and foreman of the university farm, on "Clover as a Nitriifier." He detailed some experiments

made at the university by Mr. H. H. Richardson and himself while students, and gave a full account of the method by which the clover-plant traps nitrogen.

He showed that under favorable conditions plants belonging to the clover family had the power of making use of the free nitrogen of the air. This can be done when the clover-plant has tubercles on its roots, but cannot if it has no root tubercles. In the root tubercles are millions and millions of bacteria—microscopic plants—and it is these micro-organisms that enable the plant in some unknown way to appropriate the free nitrogen of the air and make it into available plant-food. Mr. Stump pointed out that as these bacteria were a help to the plant, it is possible that on poor

large, as a rule, has no appreciation of the great work we do, and the vast good we are to agricultural interests. The funny papers delight to throw their quirks and humorous flings at us, and some very good things have been got off at our expense. But the interest manifested in our work by the best farmers of the land, and the fact that our reports on new plants, etc., are eagerly watched for, is reason enough for our existence."

"Was not the

"PATRONS OF HUSBANDRY,

"In whose councils you played so important a part during its years of prosperity, organized about the time of the creating of the department of agriculture?" queried the scribe.

of miles many of them have to travel, you can see that this amounts to quite a sum.

"To show how members of the Patrons of Husbandry received direct benefits from the order, let me relate one or two instances. In Missouri, many of the farmers used a certain kind of reaping-machine manufactured in Ohio. Some of them wrote me about it, saying it was retailed to them at one hundred and fifty dollars; was a good machine, but they wondered if we could not make some arrangements with the manufacturers to get it cheaper. I immediately wrote the manufacturers, asking them how many machines they put out in the course of a year, and at what rate they could sell the machines to the national grange, if we would take their entire out-



HEADQUARTERS, 4½ STREET, NEAR MISSOURI AVENUE, WASHINGTON, D. C. THE BIRTHPLACE OF THE ORDER OF "PATRONS OF HUSBANDRY," WHERE THE FIRST NATIONAL GRANGE WAS ORGANIZED, DECEMBER 4, 1867.

soils clover might not grow well for the want of the proper bacteria. It was, therefore, possible that the soil might be improved by manuring with a manure containing the bacteria. The land which had been clovered while still fertile, and kept in a systematic rotation, might grow clover successfully, while one which was run down before trying clover might not grow the crop so well.

The paper elicited considerable discussion. Secretary Bonham said, in reply to an inquiry, that he believed that clover and straw, or clover and corn fodder, half and half, had as much feeding value, pound for pound, as the best timothy hay.

Dr. Chamberlain said a capital distinction must be made between the heavy clay soils of the state and the lighter and more sandy soils. He noticed that those who lived on loamy soils believed in clover and were largely able to keep up the fertility of the soil by means of this plant; but he noticed that those who lived on heavy clay soils did not succeed so well with clover, but placed more reliance upon commercial fertilizers.

The next lecture was by Prof. T. F. Hunt, of the Ohio state university, on the best time to cut corn for fodder. He stated that this was a difficult question to determine, because so many factors entered into the problem. The value of an acre of corn fodder depends upon the weight of the fodder, its composition, its digestibility and its palatability. The highest attainment in any one of these directions cannot be obtained at any stage of ripeness. A feeding experiment was detailed in which equal areas of corn fodder, cut up at different stages of growth, was fed to cows and the yield of butter fat from the equal areas determined. It was found that the best results were obtained when the corn was well dented, while there was a considerable loss from cutting in the milk stage. The loss from allowing to get ripe over cutting when well dented was not marked.

Major H. E. Alvord, of Washington, D. C., delivered an able address upon "Milk and Its Products." He showed that the spoiling of milk is due to bacteria, and that the quality of butter is affected by the bacteria that gain access to the cream. He stated that at the world's fair, in connection with the exhibit of the association of agricultural colleges and experiment stations, that cream of any quality will be taken, and by inoculating with bacteria of the proper kind, butter of any desired quality will be made—good, bad or indifferent. Pure cultures of bacteria may be purchased, by the use of which butter may be made to suit the taste.

There is no way in which a dollar can be expended by which as much food can be purchased as in the purchase of milk. Skim-milk is not only a wholesome food, but as food constituents sell, has a higher value than fresh milk.

Prof. Alvord denounced the milk-inspection laws that made it a crime for a man to sell wholesome milk just because it happens to fall below a certain standard. He thought that milk should be graded into three or four grades, similar to our grades of wheat. Milk sold under a certain grade should contain a given per cent of total solids and a given per cent of fat; but no one should be prevented from selling wholesome milk, not even skim-milk, as long as he sells it for what it is.

The afternoon session opened with a paper by Prof. Samuel Johnson on "Ensilage and Economical Stock Food." He said that the chemist and the animal do not always agree, and left it to be inferred that in such cases he would take the verdict of the animal. Almost without exception, the men who have filled silos carefully are the best advocates of ensilage.

Their opponent is the man who has generally had no experience. Ensilage produces its best results when fed with other foods. Corn ensilage is not a well-balanced food. It should be fed with wheat-bran, middlings and similar nitrogenous substances. Three tons of ensilage in a combined ration is equal to a ton of timothy hay. When eighteen to twenty-four tons are obtained per acre, the economy of the method is established. Extravagant claims of large yields have been detrimental. There is some loss in the silo, and there is also some in curing corn fodder. Poor, moldy ensilage may be unwholesome, but pure, well-preserved ensilage never hurt milk. A large amount of practical evidence was given on this point. It was shown that condensing factories used milk made from ensilage.

Ensilage is as good for sheep as for cows. It pays to cut all kinds of forage for feed-

ing. There is less waste in the feed-box and less trouble in the manure-pit. Forage cannot be stored in any other way so cheaply, so far as storage capacity is concerned. Four times as much space is required for one ton of timothy hay as for three tons of corn ensilage. The best results of beef and milk production are secured, both in England and America, with a ration containing succulents.

Mr. W. W. Crane opened the discussion by showing a model that enabled him to ventilate between the outer and inner boarding. He found a cement facing, on either stone or wood, perfectly satisfactory. He was a breeder, and valued ensilage because it kept his animals looking well the year around. For those who believed that water could be furnished at the trough, it suggested dried apples and water in place of the normal fruit. It cost him seventy cents a ton to cut and fill his silo, and \$1.90 per ton was the total cost of his ensilage. He did not advise the ordinary farmers of his locality to go to the expense of building a silo. The silo has not come to supplant, but to supplement other farm methods.

Prof. Thomas Shaw, of the Guelph agricultural college, Guelph, Canada, gave the next address on "Feeding Sheep and Lambs." There is a place for some one to teach the value of mutton to the people of the United States. Each person in the United States and Canada eats only forty pounds of mutton annually. There is a great difference in mutton. It is not possible to get the best mutton from Merinos any more than the best beef from Jersey cattle. Sheep with prominent points will not be profitable for mutton. Diverse elements of blood in dam is not objectionable for the production of mutton. The sire will be more prepotent. The common stock of the country is just the thing for mutton breeding.

The dam should be medium in size, long in the coupling, wide in the body and well developed in the quarters. The sire should be short in the coupling. If not, he will lack constitution, and will not be prepotent. The breast should be as deep and wide as possible, the buttocks well rounded, the twist well filled, the legs short. A firm carriage, a brilliant eye and an erect head indicate an ability to beget an animal after his kind. The mutton sheep should resemble the cylinder, rather than the parallelogram. In regard to clipping sheep for the show-ring, the professor said that any man who knows how to handle sheep can tell in the dark whether the sheep have the right form.

Corn fodder is an excellent food for sheep. It should be cut in short lengths, when they will eat the butts before they will the leaves and finer parts. Roots or ensilage are desirable for sheep. These should be supplemented with oats and bran, and where they can be obtained, with peas. Where a large number are to be fed, they should be divided into flocks of twenty-five to fifty each. Lambs should not be sold in the fall, as there is a glut in the market at this time, but should be fed into the winter. Some very good results were obtained by feeding until May. The speaker illustrated his remarks with many incidents and experiments showing that he had large practical experience in the feeding and handling of sheep.

Mr. S. H. Todd opened the discussion by saying that the greatest danger to the sheep industry was from disease. There is no market in the world for ticks. Disease may in some measure be prevented by not keeping sheep too long on one pasture. If possible, the pasture should be changed each year.

The association of students of the school of agriculture of the Ohio state university attended the afternoon session in a body, wearing the college colors, in recognition of the two visiting professors of agriculture who appeared on the program. Both speakers expressed their pleasure at the presence of the students in such large numbers.

The session in the evening at the house of representatives opened with a paper by Prof. Lazenby on "The Economy of Good Roads." He dwelt upon the civilizing influence of good roads, and hence the desirability and propriety of the public maintenance of roads.

President Cady Staly, of the Case school of applied sciences, Cleveland, read a paper upon the maintenance of roads. Prof. Staly said that to secure good roads three things were necessary. They should be properly located, properly constructed and properly maintained. Roads should be constantly maintained, and not periodically. He suggested the use of wagons with the

hind wheels wider than the front ones by the width of the tire.

Good roads cannot be maintained without good drainage. Sandy roads do not require drainage. It is the absence of water on sandy roads that causes trouble. Such roads should neither be ditched nor piked. Too wide a road was a positive damage. The implements to be used in maintenance of roads were fully described.

The lectures were followed by a general discussion, participated in by the delegates and members of the legislature. It is evident that the members of the legislature are giving the road question serious attention. Different speakers estimated the cost of a mile of road at from \$1,700 \$8,000, showing the locality had much to do with the cost of roads. The chief difference was caused by the relative cost of obtaining a suitable grade and the relative cost of suitable material for the roadway. The two-mile assessment plan has worked well in many places, although relatively hard on the large land owners in some cases; for example, where the road passes through a village. The general opinion seemed to prevail that there ought to be an equitable division of the expense between the abutting property and the county. It helps the individual and it also helps the community.

AMERICAN SHEEP RAISERS.

What can foreign competition do with the American sheep raiser? It all depends upon the skill and judgment the American sheepman competes with. He may be found to have more chances of success than he knew of. Wait and see.

One thing is certain. Australia will be surprised to find the Yankees coolly sizing up the situation to see what he can do for himself. He is hardly likely to scare and quit, as foreign wool growers wish he would.

We have been learning some new lessons in sheep husbandry during the last six years, and may have to learn some more. We have no need of looking about to find new lines; the path is straight ahead, and only needs more intelligence to develop what we have already begun. The mutton industry has come to stay, and it is the part of wisdom to stay by it and develop it to the fullest extent. This must be in connection with better farming, thus securing the double purpose of bettering the soil and our finances.

R. M. BELL.



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Our Farm.

DAIRYING IN NEW YORK.

THE annual meeting of the Delaware county dairymen's association was held at the village hall in Delhi, Wednesday, December 7th. A very interesting and instructive session was had, notwithstanding the small attendance.

The first subject on the program, "Selling Milk and Making Butter Contrasted," was opened by G. W. Grant. He began selling milk with a view to saving labor, both indoors and out, and now, when the question of returning to butter-making is brought up, the objections by the female portion of the household soon put an end to its consideration.

His practice as to keeping up his milk dairy differs from that of most milk producers, for while most of them are always selling off and buying in fresh cows to keep up the uniform supply during the year, he raises his own calves, selecting from a strain of the best milk yielders in his dairy to breed from, giving attention at the same time to the quality of milk. He had practiced this for several years, and as a consequence now has a number of young cows in his dairy which he values so highly he would not set a price upon them. He now has in his dairy some half-blood Guernseys of his own raising that please him so well for milk production that he must express himself as strongly in favor of a cross of that breed for this purpose with some of the breeds producing the largest yields of milk, as Holsteins and Ayrshires. He said he would not dare to run a dairy for milk of pure Ayrshires, fearing a failure to produce milk of the quality demanded.

He hoped the day is not very distant when milk in our city markets will all be sold on its merits. Already there is an increased demand in that direction, some creamerymen and milk dealers not being satisfied with such milk as will merely test at the legal standard, but requiring that of a higher quality.

In answer to an inquiry as to the amount of average net profit per cow, he said he cleared about \$40 per cow. He supposed his neighbor, Mr. Rice, could give some figures showing more profit than that from his butter dairy.

Mr. Rice, being called on, said he could not give figures for the present season. His sales last year averaged \$67.82 per cow, less \$9 each for cost of feed, leaving the net average income per cow \$58.82; average yield of butter, 270½ pounds.

By request Mr. D. McMullin gave the following figures from his dairy of forty cows: Sales of milk and butter, \$2,400; value of feed used, \$400, or a net income from the forty cows of \$2,000. Mr. McMullin believes the increase in the value of a farm caused by liberal grain feeding is enough to largely repay the cost of feed used.

Mr. J. D. Smith emphasized this statement of Mr. McMullin from his own experience and observation.

Mr. Willard Frisbee, being called on to give some points from his experience with the silo, said: "I don't know as I can say much of interest, but I cannot get along without the silo. We keep now, on 115 acres of land, 58 head of cattle and 5 horses, numbering about double what we formerly kept without it. My average income per cow, from the dairy of thirty cows, is about \$60, from which deduct \$16 per cow for feed, and the net average is \$44."

The second subject, "Is there More Nutrient in Green than in Dried Sowed Corn?" was taken by J. T. McDonald. He said he could not answer that question. While he uses the silo, and don't see how he can well get along without it, he is satisfied that he cannot feed ensilage largely and produce the best quality of fancy butter, with the aroma in it demanded by such customers as he supplies. He is obliged to feed it carefully and in small quantities.

Said he, "I question very much whether, for a period of ten years in succession, more feed can be grown on our land in Delaware county in corn than in grass."

He has observed that corn, if heavy of growth, seems to remove from the land all the virtue of the manure used, and requiring so much manure to grow it successfully, thus robs the rest of the farm if grown largely.

Mr. Smith said he believed that depends largely on the nature of the land. Perhaps on natural corn land an advantage may be

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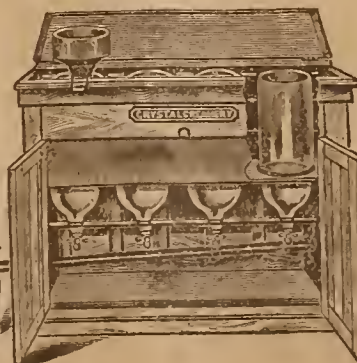
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gained in corn raising. But on his hill land, which is what we term a hard-pau soil, it is different, and on such land would agree with Mr. McDonald that grass will yield, one year with another, as much or more in feeding value.

Mr. Frisbee was asked if on his farm, which is dry land and natural to corn, he could drop his corn growing and keep up the farm to its present capacity for stock keeping. He thought he could not, at least, he would not be willing to give up his silo and try.

Mr. McDonald said, "There is no doubt in my mind but that for every ear-load of feed fed out on the farm, we get enough added fertility to keep two more cows, and in that way gain largely by increased grain feeding."

J. D. Smith made some brief remarks as to the value to the farmer of the agricultural press; also as to the advantages to the dairyman of the Babcock milk-tester. Believes it would pay every dairyman in Delaware county to have one of these instruments, or perhaps to unite with his neighbor in purchasing one; but the cost is so little that, as a rule, our farmers prefer to own that class of implements independently, and so have the control of them for themselves.

Said he, "So eminent an authority as John Gould, of Ohio, claims you cannot change the per cent of butter fat in individual cows by a change of feed; but I do not, neither do I think Mr. McDonald will agree with him."

He cited an instance where a farmer in four separate tests with the usual feed of his dairy—a mixture of corn and wheat shorts and middlings—found a uniform amount of four per cent of butter fat. Changed to wheat shorts alone, when it dropped to three per cent; then changed to corn-meal, and it raised at once to five per cent.

Mr. J. S. Hobbie said, "We usually milk our cows about ten months out of the twelve. We feed all the year around about a ton apiece of feed to our cows, a mixture of corn-meal cotton seed and coarse wheat-bran, equal parts by weight." Last year he made 348 pounds per cow, and this year expects to do a little better. He has about thirty cows in his dairy. He feeds twice a day about two quarts, or six pounds, of the above mixture. He expects to get about 240 to 250 pounds of butter per cow above the cost of the grain fed.

Some discussion was had as to the merits and demerits of feeding down pastures closely in summer. Mr. Hobbie does not believe in that nor practice it, while several other speakers favored so doing.

New York.

E. J. BROWNELL.

HOME-GROWN SEEDS.

Quite recently I have seen in the agricultural papers some discussions on the question whether it will pay the farmer or market gardener to raise his own seeds or not. In a general way, I always take the negative side of the question as I believe seed growing is a business by itself, which to be successful has to be learned and studied. Our improved vegetables are the result of a long process of skillful manipulation, and their natural tendency is in the direction of degeneration and reversion to the natural (poor) type. Continued skillful manipulation is required to keep them up to their present high standard. Plant them on poor soil or under neglect, and they will soon "run out." Believing that one of the first conditions of highest success in gardening is good seed, I have always purchased my supply of seeds from parties with whom my previous experience had told me I could trust implicitly, making an exception only with new and rare and therefore high-priced varieties, of which, usually, I try to save seed for future planting. I have thus obtained quite a large supply of the various bush Lima beans, and of a few other yet high-priced vegetables. These I find it cheaper to raise than to buy; but the ordinary varieties I prefer to secure from reliable seedsmen. I then am reasonably sure of getting my varieties true to name, instead of the mixtures that in many cases I would be liable to raise from home-grown seeds.

The Pennsylvania state college agricultural experiment station has made some investigations concerning the comparative results obtained by planting home-grown and purchased seeds. The conclusions thus far arrived at are as follows:

"(1) The station seeds were, as a rule, heavier than the purchased seeds.

"(2) The weight was no indication of the germinative value of the seed.

"(3) In the majority of cases the earlier marketable products were obtained from the purchased seeds.

"(4) The greater yield, with but few exceptions, was obtained from purchased seeds.

"(5) Lettuce from purchased seeds produced heads that did not "shoot up" to flower as early as the plants from the station seeds.

"(6) Radishes from purchased seeds were larger, more tender and more uniform than those from station seeds.

"(7) Tomato-plants from purchased seeds gave earlier fruit and more of it than plants from station seeds.

"(8) On the whole, the results are strongly in favor of seeds from good soil, however rich that may be."

The station seeds, of course, were all grown on ordinary farm land, and this accounts for their inferiority. If they were grown on good garden soil, as most home and market gardeners would plant them, the difference in results would probably be slight for a year or two. But there would still be the danger from "mixing." On the whole, therefore, it will be safer to use the seeds furnished by leading seedsmen instead of home-grown ones.

JOSEPH.

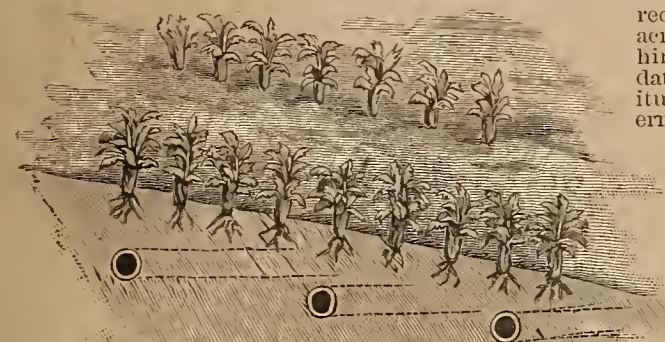
Our Farm.

IRRIGATING CELERY.

Joseph's plan of irrigating celery, given in FARM AND FIRESIDE of December 15th, looks feasible, but, as it has been well said that "our best-laid plans and theories often fail in practice," there has been an essential point left out that will prove the plan a failure unless corrected. This point comes from the fact that water will seek its own level, for if his land is, as he says, even but slightly sloping, the water will come out at the lower end and leave the higher end of the bed comparatively dry.

This will happen even if the joints of the tile are stopped up, for it is impossible to make tile so tight that the water will not find an opening.

This is no theory with me, for in the two past seasons I have helped to put in several rods of tile to be used in the same way and



IRRIGATION ON SLOPE.—TILE LINES ALL ON DEAD LEVEL.

for the same crop that Joseph mentions, and although we had but two inches of fall in fifty feet, yet the lower end of the bed was wet when the other was dry.

That was in our first season's trial. The next season we took up the tile and laid them on a level, letting the fall be on the surface of the bed, yet the results were the same, the water coming out on the lower part of the bed.

I do not believe that irrigating with tile can be made a success unless the tile be laid on a level, or even slightly lower at the month than at the farther end. If the tiles are laid on a level, two inches of water can be put in, and this will give enough fall to carry the water quite a distance, and if it is possible to put in water enough to fill the tile entirely, then it will come out just where it is wanted.

There is one way in which tiles may be used for irrigating on a slope, and that is by laying the tile across the slope on a level. The water will then come out at one side of the tile, and water the ground nicely, as shown in illustration.

E. C. GREEN.

Experiment Station, Wooster, Ohio.

NOTES FROM GARDEN AND FIELD.

THE IRRIGATION PROBLEM.—The several communications which I have received in regard to sub-irrigation by tiles (spoken of in my article in FARM AND FIRESIDE of December 15th), prove this to be a live and timely topic. Surely we have yet a good deal to learn about irrigation and its possibilities. By my remarks in the article mentioned I have succeeded in "drawing



SURFACE IRRIGATION BY TILE LINES.

out" others, and hope that we shall hear of many more on the same subject, which is one that plays a very important part in successful gardening. Mr. E. C. Green, of the Ohio experiment station, makes a timely suggestion. The tile lines must not be so sloping away from the mouth that the water will all run to the further end, and none be left for the upper end. Yet much depends on the character of the soil. I have irrigated a piece of porous, sandy loam, letting an abundant supply of water run down some considerable slope in shallow furrows, and the water soaked in so rapidly that the lower end was reached only long after the upper part was completely saturated, and mud-like. I imagine that in this soil the tile line on a slope would just about distribute the water

evenly. While letting a part of the water out at the joints near the mouth, the tile must prevent the water from soaking into the ground so fast that none of it would be left for the further end. On the porous, sandy muck soils, which are perhaps the very best for growing "celery for profit," I think we can safely give our tile lines a little slope also. Clayey soils, however, will not let the water pass through so easily, and here we will have to use greater care in laying our tile lines, and possibly avoid all and every slope. When the tiles are laid partially above the surface, as shown in illustration, we can also give them a little fall, as the water will leak out at the joints in big streams. It is true, however, that we need some more experimenting in this line. Irrigation presents to us yet many unsolved problems.

VEGETABLES FOR THE HOME GARDEN.—Some time ago a prominent Philadelphia seedsman, asked me for a list of seeds required for a one-fourth-acre home garden. I gave him the following, with dates of sowing in the latitude of south Jersey, southern Pennsylvania, Delaware, Maryland, etc.: One quart of extra early smooth peas (one of the first earlies), March 1st to 15th; one quart of early dwarf wrinkled peas (something like Little Gem or Excelsior), March 8th to 25th; two quarts of later wrinkled peas (Telephone, Stratagem, Champion of England, etc.), March 8th to 25th; one fourth pound spinach (Long Standing), March, August, September, October; two ounces of Barletta onions for pickling, March 1st to 25th; two ounces of Yellow Dutch onion for sets, March 1st to 15th, small quantity to be started in box in window, February 1st to 15th; two quarts of onion sets, white and yellow, March 1st to 15th; one packet of Prizetaker onion started in box in window, February 1st to 15th; one packet of Wakefield cabbage in box, February 1st; one ounce of late cabbage (Surehead), June 1st; one ounce of Eclipse beet; April, May, June; one packet of Early Scarlet Horn carrot, March 15th to 25th; one packet of Chautenay carrot, April, May; one packet of Danvers carrot, April, May, June; one packet of Ruby King pepper in house, February 1st; one packet of egg-plant (New York Purple), in house, February 1st; one packet of tomato (Early Ruby), February 1st; one packet of tomato (Matchless or Ignotum), February 1st; two ounces of radish (Earliest Turnip), March, April, May; one ounce of Long Scarlet radish, June; one ounce of radish (Golden Summer), June; one packet of winter radish (California Winter), August, September; three packets of lettuce (Grand Rapids, Denver Market, Hanson, Prizehead, Ohio Cabbage, Sensation, Marblehead, Mammoth, Buttercup, etc.), March 1st to 15th; one packet of cauliflower (Snowball, Earliest Erfurt), March, April, May, June; one ounce of sugar-beet, April; one packet of cress (Extra Curled), April 1; one packet of kohlrabi, April, May; one pint of beans (Valentine), May 1st to 15th; one pint of beans (Butter Wax), June, July; one pint of beans (Henderson's Bush Lima), May 15th; one pint of sweet corn (Cory), May 1st; one pint of medium early sweet corn, May 8; one pint of late sweet corn (Shoepeg, Country Gentleman, Stowell's Evergreen), May to July 1st; two ounces of cucumbers (Long Green), May, June; one packet of cucumber (White Spine), May, June; one ounce of muskmelon (Emerald Gem), May 15th; one packet of watermelon (Hungarian Honey, Volga, Dixie), May 15th; one packet of Summer Crookneck

squash, May 15th; one packet of Hubbard squash, May 15th; one packet of parsley (Double Curled), March 15th; one packet of sage, June; one ounce of rutabaga, July, August; one ounce of turnip (Red Top Strap Leaf), July, August. Then, of course, you will need some early potatoes, say a half bushel or bushel of Early Ohio or Early Rose or Beauty of Hebron. I prefer the first named to all others, as it gives good table potatoes before any of the rest do. You may also want one hundred sweet potato plants, and you should have (or plant if you have no patch yet) two hundred and fifty strawberry-plants, fifty asparagus-plants, twenty rhubarb roots, one dozen currants, a few gooseberry-bushes, some raspberries, and ten grape-vines (Concord, Warden, Niagara, Delaware, with perhaps a Green Mountain or two). These vegetables and fruit plants and bushes can easily be accommodated on a one-fourth-acre home garden. Some herbs may also be planted. JOSEPH.

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ORDER two collections, and I will add a liberal packet of Mixed Flower Seeds (1000 varieties), yielding something new every morning the entire season. For a club of three I will add the Mixed Seeds and a packet of Giant French Pansies, imported direct from Paris. Get up a club. Address GEO. W. PARK, Libonia, Pa.

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\$1.00 FOR 4 EARLY TOMATOES!

—THIS WONDERFUL—"EARLIEST TOMATO IN THE WORLD" is just what everyone wants. It has proved the earliest and best by the side of every variety. It bears abundantly of large bright red tomatoes, very smooth, of excellent quality, extremely solid all through, with only a few seeds and free from rot. My plants set in garden last of May produced full size ripe tomatoes July 2nd, and was pronounced a perfect wonder by all who saw them growing. After you once test them you will grow no others for they grow so rapidly. Seed was sown in hot bed in April. I want a BIG record for this tomato in 1893, and will pay \$500 in cash to a person growing a ripe tomato in 75 days from the date the seed is sown. Also \$400 to the person growing a ripe tomato in the least number of days from day seed is sown; \$25 for next and \$75 for next. BEWARE OF IMITATIONS for I am introducer and own all the seed. Never offered before. SURE HEAD CABBAGE is all head and sure to head, very uniform, of large size, firm and fine in texture, excellent quality, and a good keeper. I will pay \$100 for the heaviest head grown from my seed in 1893 and \$50 for the next heaviest. Single heads have weighed over 60 lbs. GIANT SILVER QUEEN ONION is the largest and handsomest ever offered. Single specimens under

sworn testimony, have weighed over 5 lbs. They are of mild and delicate flavor, grow rapidly, ripen early, flesh white and handsome. I will pay \$100 for the heaviest onion grown from my seed in 1893, and \$50 for next heaviest. ALICE PANSY has created a sensation everywhere. They are the largest and contain the greatest number of colors (many never seen before in pansies) of any pansy ever offered. I offer \$500 in cash to a person growing a Blossom of the "Alice Pansy" in 1893, from my seed, 4 1/2 inches in diameter, and \$300 for the largest blossom grown, \$100 for second, \$50 for third, \$50 for fourth, \$50 for fifth and \$50 for sixth. Try this and get some beauties. Full particulars of all prizes in my catalogue. MY CATALOGUE is full of bargains. \$4,500 offered in premiums; \$900 is offered persons sending me the largest number of customers by July 1st; \$500 for the largest club orders; \$100 for the largest farmer's order; and every one will be paid July 1st. Mrs. T. B. Young, Rock City, Ill., sent largest club order in 1892 and I paid her \$500. Her photograph is in catalogue. Don't buy a seed until you see it. Prices low. \$1 customers get 50 cents extra of their selection. FREE! MY OFFER I will send a package each of "Earliest Tomato in the World," Sure Head Cabbage, Giant Silver Queen Onion and Alice Pansy with my Catalogue for only 25 cts. Every person sending silver, P. N. or M. O. for the above collection will receive free a package Mammoth Prize Tomato, which grows over 14 ft. high, and this year I will pay \$500 to any person growing one weighing 4 lbs. It CAN be done. If 2 persons send for two collections together each will receive Free a package of "Wonder of the World" Beans. They originate among a tribe of Indians, stalks grow large as broom handle and pods 18 in. long. Beans white. It is a wonder, and such a curiosity was never heard of before. Address, F. B. Mills, Rose Hill, N.Y.



Rawson's Tested Seeds.

There is a certain uncertainty about some seeds, but not about RAWSON'S; they are always certain to grow. We test them ourselves; we know their worth, and can guarantee them second to none. Our extensive trial grounds, in addition to the ten acres under glass, afford us unsurpassed facilities not only for testing the germinating quality of the seed, but of seeing them come to maturity. Our illustrated Catalogue for 1893 gives the planter the benefit of our experience, and contains many special offers in which there is profit for you. Send for it at once.

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Our Farm.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

GROWING SMALL FRUITS.

So easily may one provide for an abundant supply of small fruits, that it is to be wondered at that there are still so many who willingly deny themselves and their families of a healthful luxury for the want of a little—very little—outlay of time, money and soil.

One acre, if judiciously planted to a well-selected stock of strawberries, currants, gooseberries, raspberries, blackberries and grapes, will usually supply an ordinary family and furnish enough surplus to bring on the market sufficient returns to repay all expenses the second year.

In case no orchard has been planted on the place, the small fruits may be placed on the same acre of ground, and to no disadvantage to either small fruits or trees, if properly fed with domestic fertilizers.

In the first place, select a suitable tract,

yard manure, together with good culture, the orchard will be in better condition at bearing than when first planted. It has been tried here at "Shady Nook" and proves a success, so there is no theorizing about the subject.

JOHN L. SHAWVER.

THE EXPENSE ATTENDING THE CULTIVATION OF BLACKBERRIES.

I find the following in your issue of October 18th:

"The Thayer fruit farms, of Sparta, Wis., have sold over two thousand bushels of blackberries from ten acres, receiving \$5,500 for same. They have also received as much more for strawberries, raspberries, currants, gooseberries, etc. How is this for making money easily?"

While the above statement is approximately correct, it may lead some to embark in an enterprise that is quite uncertain in its results, unless the methods of producing such a crop are more fully explained and understood.

It must be remembered that this has been a favorable year for blackberries, and prices have ruled high; that shipping facilities and markets have been first-class; that the varieties grown, the cultivation, pruning, protection, picking, packing and marketing have been of the best. It is consequently an exceptional success, and about double the average for a term of years.

STRAWBERRIES

VEGETABLES

CLOVER

RASPBERRIES

GRAPES

CURRANTS

GOOSEBERRIES

PLAN FOR SETTING OUT SMALL FRUITS.

say ten rods wide and sixteen rods long, well drained, either naturally or artificially, and cover with manure in the fall or early winter, spreading evenly. In the spring, plow deep, pulverize thoroughly, and set the trees thirty-three feet apart each way. You then have forty trees, which the cultivation given to small fruits will keep in good, thrifty condition.

In the rows of trees the long way may be planted four blackberry-canec between each two trees—twenty-eight to the row, one hundred and forty to the acre. In cultivating the blackberries you will also cultivate the trees, and the blackberries will do all the better for the partial shade afforded by the trees. Between the outside rows on one side plant a row of grapes one rod from either row of trees, thus providing for an abundance of sunlight even when the trees are grown. Between the grapes and one row of trees set two rows of raspberries, five and one half feet apart and the same distance in the row. Between the grapes and the opposite row of trees plant a row of gooseberries and one row of currants, the former five and one half feet in the row, the latter three feet. You now have twenty-two grapes, forty-four raspberries, twenty-two gooseberries and seventy-eight currants, all in good shape to cultivate the long way with horse and cultivator, and three unoccupied spaces of a quarter of an acre each. One of these may now be set to strawberries in rows four feet apart and eighteen inches in the row. This will give twelve hundred and thirty-two plants, and should produce eighty to one hundred bushels of berries with fair culture; enough to pay all expenses. The second space may be planted to garden vegetables, and the third space should be sown to clover as a fertilizer. Alternate with clover, vegetables and strawberries, always using the first clover crop as a mulch for trees and berries, and the second crop as fertilizer, and you will be pleased with the result.

Some will say that the trees, when grown, will shade the berry-canec too much, but it is well known that blackberries and raspberries, as well as currants and gooseberries, do better when in partial shade, so the argument will not avail.

Again, others will say that by producing the small fruit you will impoverish the soil before the orchard is in bearing. Not unless you practice the robber system of taking all and giving none. With clover rotation and liberal applications of barn-

Few people realize the expense and labor necessary to set an acre of blackberries, and care for them the first two years in a way to produce two hundred bushels at maturity. After bringing land to a high state of cultivation, the following close estimate is made of such expense, figuring the labor of one man at \$1.25 per day, and man and team at \$2.50:

FIRST YEAR.	
Plowing ground.....	\$ 1.50
Harrowing five times.....	2.50
Rolling and marking.....	1.00
2,000 Briton plants.....	40.00
Setting plants.....	7.50
Cultivating ten times.....	3.75
Hoeing six times.....	6.00
Laying down for winter.....	2.50

First year's expense..... \$ 64.75

SECOND YEAR.	
Taking up plants in spring.....	\$ 1.25
400 new plants to replace dead ones.....	8.00
Setting 400 plants.....	2.00
60 posts at 6 cents.....	3.60
270 stakes at 2 cents.....	5.40
380 rods No. 12 wire.....	12.60
Setting posts and stakes.....	5.00
Stringing wire.....	2.50
Cultivating ten times.....	3.75
Hoeing four times.....	4.00
Two loads clover mulching.....	8.00
Placing clover mulching.....	3.15
Pinching back.....	2.50
Laying down for winter.....	7.50
Use of tools, etc.....	6.00

Total for two years..... \$140.00

The above estimates may vary somewhat in different soils, localities and seasons. There will also be some extras not provided for in the above, so we may safely say it will require from \$125 to \$150 per acre to bring best blackberries to first-class bearing condition.

After the second year the annual expense is estimated as follows:

Taking up the plants in spring.....	\$ 2.50
Cultivating and hoeing.....	8.00
Mulching.....	12.00
Nipping back and trimming.....	5.00
Laying down for winter.....	7.50
Tools, etc.....	5.00

Total..... \$40.00

To which should be added:

For picking, per box.....	1 1/2 c
Boxes and cases.....	1 c
Packing and selling.....	1 c

Total expense per quart..... 3 1/2 c

The above estimate of cost may seem

high to most people, but I am satisfied beyond a doubt that any attempt to reduce cost of production by omitting any of the items named, or any part thereof, is almost sure to correspondingly reduce both quality and quantity of fruit. By allowing a reasonable sum for the use of land and investment, as above estimated, prices same as this year, we find that a yield of two hundred bushels per acre will give the grower a net profit of nearly \$250 per acre, while one hundred bushels per acre would give about \$80 profit, and fifty bushels per acre little or no profit at all.

If, then, you would make the most money in berries, raise only best varieties, and cultivate, pack and market in the best manner.—M. A. Thayer, in Herald.

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WONDERFUL 3-pound Tomatoes selling at 15c. to 75c. each. \$550 Cash Prizes. Address DAVID LOGAN & CO., MEADVILLE, PA.

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100 Varieties. Also Small Fruits, Trees, &c. Best rooted stock. Genuine, cheap. 2 sample vines mailed for 10c. Descriptive price list free. LEWIS ROESCH, Fredonia, N. Y.

WANTED—Every reader of this paper who is interested in Strawberries 32-page Illustrated and Descriptive Strawberry Catalogue. FREE. Send now, it will pay you. W. F. ALLEN, JR., SALISBURY, MD.

TREES 6 Apple Trees, assorted, prepaid, \$1.00
7 Peach " " " 1.00
12 Blackberries, " " 50c.
10 Flowering Shrubs, asst. " 1.00

Grape Vines, best varieties, Concord, Worden, Brighton, Moore's Early, Niagara, 2 each, prepaid, for \$1.00.
Double Tuberose, 25c.

SEEDS 10 packets of Flower Seeds, 10 varieties of 100 colors, prepaid for 25 cts. Our cat. rate list sent FREE
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Mention Farm and Fireside.

PRAY YOUR TREES. \$17 Spray Pump \$5.50
EXPRESS PAID, FOR
MAKES 3 COMPLETE BRASS MACHINES. WILL SPRAY 10 ACRES PER DAY.
AUTOMATIC MIXER for '93. Best, Cheapest, and Easiest working Spray Pump made. Endorsed by the leading Entomologists of the U. S. A. Valuable Ill'd Book (worth \$5.00) "Our Insect Pests," given to each purchaser. SATISFACTION GUARANTEED OR MONEY REFUNDED. Over 60,000 in use. One Farmer agent has sold over 2000. Insecticides at wholesale prices. Ill'd cat. on spraying free. Mention paper. P. C. LEWIS MFG CO., Catskill, N. Y.

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BEST & CHEAPEST
NEW GRAPES—Esther, Rockwood, Eaton, Moyer and all others New and Old. Small FRUITS. Catalogue FREE. GEO. S. JOSSELYN, FREDONIA, N. Y.

SEEDS! 1,000,000 to give away
This grand box contains only choice seeds and those which are sure to please. It is mailed free to all purchasers of our Show Collection of Flower Seeds. This collection contains 5 pkts. viz.: Bell's Show Mixed Asters, 400 rare sorts; Bell's Show Mixed Pinks, 100 choice sorts; Bell's Show Mixed Godetias, showy satin like flowers; Bell's Show Mixed Phlox, rare large flowering sorts; Bell's Show Mixed Pansies, finest strains ever produced. These 5 pkts. are worth 50c. alone.
This Columbian Floral Box contains one packet each of Arabis, a lovely Spring flowering plant. Rare new Hybrid Columbine, very choice and double; Double White Calendula, showy; Golden Wave Calliopsis, effective and popular; White Bonquet Chrysanthemum, extra fine for bouquets; Purple King Clarkia, intensely double, showy; Double White Bush Morning Glory, pleases everybody; Beautiful Home Sweet Peas, large flowering, every conceivable color; Perpetual Gaillardias, grand free bloomers; New Mammoth Passion Flower, the grandest climber ever offered. Besides these 10 packets, the box contains one of our Rare New Hybrid Gladiolus bulbs, and a bulb of Excelsior Pearl Tuberose, worth at least \$1.50, but presented free with beautiful Seed Annual to all sending 25 cts. for Show Collection. Just Think 15 Packets of Rare Flower Seed and 2 Grand Bulbs for only 25 cents, mailed postpaid. Best collection of seeds in America. Don't buy till you get our annual.
Address J. J. BELL, FLOWERS, BROOME CO., N. Y.

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For 4 full sized packets of Valuable Novelties in . . . FLOWER SEEDS!

GIANT FRENCH PANSIES Absolutely the largest flowered strains in existence and includes all the shades and colors found in the Pansy family. Some are solid or self colors, others blotched and striped in the most peculiar manner. Price per packet 20 cents.
OUR MAMMOTH CALIFORNIA SWEET PEA at an enormous price. We have secured this strain from one of the greatest flower seed specialists and now offer it to the public for the first time. Flowers are of enormous size and the most beautiful colors imaginable. Price per packet 20 cents.
OUR FAMOUS ZEBRA VERBENAS Nothing ever introduced in the sensation as the wonderful Verbena novelty "Zebra." The blossoms are very large and freely produced through the entire Summer. Each flower is striped in the most charming manner. A decided novelty and one that will please all. Packet 25c.
NEW PINK ASTER, Rose Queen. This wonderful novelty we have secured from one of the best known seed specialists of Germany. Flowers are perfectly double and extra large and rich rose or pink shade. A rare and valuable novelty. Price per packet 20 cents.
To introduce our rare flower seeds we will send the above collection post-paid to any address on receipt of only 16 cts. (regular price 35 cents. This is less than actual cost and we make this offer simply to introduce our prize winning seeds. CATALOGUE FREE to all sending for the above collection. It contains a choice list of novelties and thousands of illustrations. Order to-day, as this offer will not appear again. Mention this paper when writing. S. F. LEONARD, Seedsman, Chicago, Ill.

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Do you intend planting any Strawberries, Raspberries, Blackberries or other small fruit plants, Roses or novelties. Send for my 60-page catalogue and the best report on strawberries ever published. Free. D. BRANDT, BOX 311, BREMEN, OHIO.

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Automatic Mixers, Brass Working, Paris Heavy Hose and VERMOREL NOZZLES. Our GARFIELD KNAPSACK and LITTLE GEN lead all others. You can save money by dealing with us. Book of instructions free. FIELD, FORCE PUMP CO., 185 Bristol Ave., LOCKPORT, N. Y.

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Wormy Fruit and Leaf Blight of Apples, Peaches, Cherries, and Plums prevented; also Grape and Potato Rot—by spraying with Stahl's Double Acting Excelsior Spraying Outfit. Best in the market. Thousands in use. Catalogue, describing all insects injurious to fruit, mailed free. Address WM. STAHL, Quincy, Ill.

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ENGINES
If you want to buy a strictly first-class outfit at low figures, address The W. C. LEFFEL CO., Greenmount at SPRINGFIELD, O.

Our Farm.

Orchard and Small Fruits.

CONDUCTED BY SAMUEL B. GREEN.

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Blight-resisting Apples.—E. I., Halsted, Kan. Lieby, MacMahon White, Auissein (Good Peasant) and Wealthy. The Wealthy blights badly some seasons, but if top-worked on the branches of Virginia or some other strong-growing crab, it soon recovers from blight. The Lieby is a pretty apple, quite sour, but excellent for cooking. The MacMahon White is a fine, large, showy fruit. You will notice I have not mentioned a variety in the old list. I do this because I think you are acquainted with Ben Davis, Tallman Sweet and other blight-resisting kinds of the old list, and because they are not as free from blight as those mentioned, excepting the Wealthy.

Broken Grape-vine.—W. R., Lonaconing, Md., writes: "Give me your advice regarding my grape-vine. It is a beautiful young vine, and last year was its first fruiting. My dog got over the fence and with his teeth tore the vine one half from the other. Do you think that by tying them together and then covering with grafting-wax it will come all right in spring? Or do you think I had better put the broken portion down in the ground and cover it well?"

REPLY:—You had probably better layer the poorest part next spring, and so make a new vine of it. Cover the torn surfaces with blue clay or grafting-wax and wrap with a cloth, and they will soon heal over, but the two pieces will not grow together, and there is no use fussing with them.

Leaf-fungus—White Grapes—Ohio Raspberry.—E. K. M., Arcola, Md. I fear your raspberries have been attacked with some leaf-fungus, but I am not able to tell what it is from your description of it.—The Niagara and Pocklington I think some harder than Martha, and they have larger berries. The Niagara is the most productive. The Moors Diamond is a new white grape that I consider very promising. It can now be obtained at quite a reasonable figure, and is worth trying in a small way. I think the Delaware the best red grape, but the foliage should be sprayed to protect it from mildew. The Vergennes is a dark red grape. Vine vigorous, hardy, healthy and productive. Valuable for marketing. Ripens with Concord.—The Ohio is a very productive black-cap, hardier and earlier, but smaller, than Gregg, of good quality and very productive.

Blackberries—Strawberries—Number of Baskets Needed—Mulching.—H. F. M., Broadway, Ohio. Set blackberries four feet apart in rows eight feet apart. I prefer to mark the land each way with a four-foot corner-marker and then furrow out one way on every other mark, and set plants at the intersections with the marks the other way.—I cannot describe either Leader or Swindle, as I got them only last spring. They are new varieties, and but little is known about them.—If the grocer returns the boxes promptly, one thousand baskets will do for half an acre, but I should rather have fifteen hundred on hand if I could not buy them promptly as wanted. Boxes may be obtained from your nearest dealer in agricultural implements. If you have a neighbor in the strawberry business, you had better ask where he gets his boxes.—Strawberry-plants can be safely wintered in the cellar, if it is cold. Your treatment is a very good one. A better way is to beel them in outside, with plenty of earth between the plants, and then mulch them. Mulch may be put on strawberry beds at any time after they freeze up in autumn. It is of no special use while the bed is covered with snow, but is most useful in the early spring to prevent alternate freezing and thawing.

Raising Fruits for Distant Markets.—S. W. S., Wentzville, Mo., writes: "I have about three acres of land that I would like to put in fruit, such as pears, peaches, plums and grapes. I am seventy miles from St. Louis, and can put the fruit on the market at noon the day it is shipped. I also have another market at Hannibal, which is fifty miles and can be reached at noon. I have experimented some with different kinds of fruits for my own use. All kinds grow well on my land, as it is very rich limestone land that will raise about thirty bushels of wheat per acre; the timber that was taken from it was walnut, ash, hickory and blackberry. I wish to ask if, with this land and this distance from market, it will pay me to set it in fruit, and what kinds will pay best? I have fruit enough growing for my own use."

REPLY:—It is rather doubtful about you being able to make much on small fruit shipped so far to St. Louis and Hannibal, for they are largely supplied from the territory near by them. Then again, noon is a bad time to have fruit arrive in market, for it must lie over until the next morning before it is sold, and it is exposed to the hottest part of the day. If the fruit could be shipped in the evening and arrive at the market by twelve o'clock, so that it could be sold early in the forenoon, as is done in some places, it might do very well. Around New York City the evening milk-trains have special fruit-cars, and the perishable fruit is sold in the city by 3 A. M., often right from the cars. Under these circumstances the fruit travels in the cool of the day and arrives in good order. You might, however, raise peaches, grapes and apples profitably. Another point of importance is express rates. Are they low enough to allow you to send anything ninety miles at a profit?



THE Queen OF ALL Sweet Peas
"Emily Henderson"

This, our latest floral debutant, is the first pure white Sweet Pea ever offered. Its individual flowers are of the largest size, and of perfect form. Where the best of all previous varieties produce but two flowers on the stem or spray, this peerless young beauty never seems satisfied to bear less than three, nearly as often four, and frequently five and six, large and perfect flowers that look you almost boldly in the face (so strong and robust is its growth). Its prodigious abundance of bloom makes it almost a floral phenomenon; a single plant of EMILY HENDERSON, produced in the open ground, from the beginning to the end of the season, 1,035 sprays of bloom—not individual flowers, but sprays or stems. Its fragrance, too, is something truly delicious. No fairer or more valuable flower has been added to our list in twenty years. We do not pretend to tell here all its merits but in our Catalogue, referred to below, the history of this variety is given, together with a full-page engraving. It is not only the

QUEEN OF ALL SWEET PEAS,
but it will also prove to be the "Flag-ship" of America's FLORAL SQUADRON in 1893.

Price of seeds, 25c. per packet; 3 packets for 60c.; 6 packets for \$1.00. Free by mail on receipt of price. Full cultural instructions on each packet. With every order for a single packet or more, will be sent, free, our Catalogue for 1893 of "EVERYTHING FOR THE GARDEN," (which alone costs us 25 cents), provided you will state where you saw this advertisement. This Catalogue is, in every sense, the most superb publication of its kind ever issued, it is really a book of 150 pages, containing 8 beautiful full-sized colored plates, and hundreds of new engravings, all truthfully portraying the "CREAM" of everything new, rare and desirable in SEEDS and PLANTS. If Catalogue alone is wanted, it will be mailed on receipt of 25 cents, which can be deducted on first order from Catalogue. Postage stamps accepted as cash.

PETER HENDERSON & CO. 35 CORTLANDT ST. NEW YORK.

WE WILL PAY \$200.00 IN CASH

1st PRIZE \$30.00 **2nd PRIZE \$20.00**

FOR THE LARGEST YIELD AND THE LARGEST TUBER OF THE VAUGHAN POTATO

Grown from our seed in 1893. It will cost you only 24 Cents to compete for the 24 Five Prizes. The Vaughan Potato is known as one of the very best early and productive varieties now before the public, and no early potato now grown has caused as great a sensation since the Early Rose was first introduced. It has size, quality and yield. We want to see how large a yield and how large a single tuber can be grown from ten ounces of this grand Potato and will pay two hundred dollars in cash to secure this information.

5th PRIZE \$100.00

VAUGHAN'S SEED STORE
CHICAGO, 148 W. Washington St. NEW YORK, 26 Barclay Street. Write to-day. This Advertisement will not appear again.

3rd PRIZE \$15.00 **4th PRIZE \$10.00**

WILSON'S COMMON SENSE SEED CATALOGUE
For 1893—SENT FREE.

116 Pages, 200 Fine Engravings. Full of useful and instructive information. One of the most reliable catalogues published. All kinds of guaranteed Garden, Flower, and Field Seeds, Fruit and Ornamental Trees, Small Fruits, Choice Roses, Flowering Plants and Bulbs. Thoroughbred Poultry, Registered Pigs, German Hares, &c. Address SAMUEL WILSON, Seed Grower, MECHANICSVILLE, PA. The Great FREEMAN POTATO Given Away!

Coughs and Colds are often overlooked. A continuance for any length of time causes irritation of the Lungs or some chronic Throat Trouble. BROWN'S BRONCHIAL TROCHES invariably give immediate relief. Sold only in boxes, 25 cents.

No Trees of 1st quality can ever be sent by mail. Mayhap you know it. By freight, prepaid if preferred, we ship safely 4, 5, or 6 ft. trees; 2-yr. Roses of rare excellence—everything! You actually pay less than for the puny stuff. 1,000 acres Nurseries. 20,000 acres Orchards. Exact information about trees and fruits. Stark Bros., Louisiana, Mo.

MARYLAND FARMS. Book and Map FREE. C. E. SHANAHAN, Attorney, EASTON, MD. If afflicted with sore eyes use **Dr. Thompson's Eye-Water**

EXTRACTS FROM CORRESPONDENCE.

FROM NEBRASKA.—So far there has been only one day this winter that a man could not work comfortably. Hogs are worth \$7.25 per hundred weight; corn, 27 cents per bushel; wheat, 45 and 50 cents; rye, 50 cents; barley, 40 and 45 cents; eggs, 25 cents a dozen; butter, 15 and 20 cents a pound; hay, \$5 a ton. Kearney county is in the second tier of counties from the south, and is as fine a county as there is in the state. There are plenty of schools and good churches. C. M. C. Norman, Neb.

FROM TENNESSEE.—Jefferson county is one of the richest counties in the state. Land ranges in price from \$10 to \$40 per acre. Wheat, rye, oats, corn, potatoes and all kinds of vegetables grow to perfection here. The East Tennessee, Virginia and Georgia railroad runs through this county, furnishing easy transportation for all of the stock and produce grown for either the eastern or southern markets. Most of our stock is shipped east. Jefferson county is ahead of most of her sister counties in education. We have a public fund of about \$50,000, the interest of which is appropriated to our public schools. We have one of the finest colleges in the state, located at Mossy Creek. It is a Baptist institution. Jefferson county offers good inducements to people who have push, vim and vinegar in them. R. S. N. Alena, Tenn.

FROM MARYLAND.—Situated between the Atlantic ocean and the Chesapeake bay, the eastern shore peninsula of Maryland is distinguished for its salubrity of climate. Dr. C. W. Chancellor, secretary of the state board of health, in an article entitled "The Eastern Shore of Maryland as a Home for Consumptives," says: "In insipient consumption, the eastern shore peninsula of Maryland is the finest place of residence in the world." It is a popular all-the-year-round place of residence. The winters are usually short, open and bright. The surface of the peninsula is generally level, the soil is a red, white and dark loam and clay, entirely void of rock and easily cultivated; in some sections it is underlaid with marl. The land grows the finest fruits, melons, vegetables, and grain and hay in great abundance. Asparagus, melons, berries and early vegetables pay over \$300 an acre. This peninsula competes with Norfolk, Va., in supplying the great eastern cities with early fruits and vegetables. Vienna is one hundred and thirty miles nearer Baltimore, Philadelphia and New York than is Norfolk, Va. Fast freight from this place to the above cities requires only four, six and eight hours respectively. The peninsula is well sheltered by fine forests of oak, pine, ash, poplar, maple, gum, walnut, chestnut, hickory, cypress, cedar, etc. It is well watered by over thirty salt-water rivers and bays, which abound with the finest oysters, fish, diamond-back terrapins, crabs, clams and other shell-fish, canvass-back, red-head, teal and mallard ducks, wild geese, swan and other water-fowl, to be had for the mere taking. Quail and other game, including the beaver, otter, mink and muskrat—all valuable for their fur—is plentiful. Like the oysters, terrapins and fish, game is protected by wise and salutary laws. The rivers support a daily line of steamers to and from Baltimore. The wealth of our oyster-grounds is untold. Thirty thousand people earn their living on the oyster rocks. Five hundred men spend their time in catching the diamond-back terrapin, which sell readily the season through at \$60 a dozen. These are often caught when small and kept in ponds, where his "terrapinship" grows up and becomes so domesticated that he will not only answer the call of his owner, but actually take food from his hand. Terrapin farming is no mean employment here, and is profitable. Three farmers recently sold their "diamond-backs" to one dealer for \$1,600. Well-improved farms with orchards in full bearing are being purchased by farmers from the North and West and Canada at fifteen to thirty dollars an acre. Within the past few years there has been a great influx of settlers who have learned of the peninsula and its advantages through some medical writer or farm journal correspondent. This peninsula is certainly exempt from the extremes of heat and cold (except on rare occasions), blizzards, cyclones, earthquakes, droughts, insect pests and poisonous reptiles. Fog is almost a stranger to this peninsula. The present winter on this peninsula is the coldest and most prolonged of which there is any record. Although our rivers and bays are completely closed to navigation and the ground is covered with four inches of snow, there is no suffering among the farmers and their stock. Young lambs are frisky and gay. We have an abundance of fire-wood near the door and plenty of water and feed for stock. We are getting \$16 a ton for timothy, which never brings under \$10; wheat, 81 cents per bushel; corn, 54 cents; oats, 42 cents; rye, 63 cents; potatoes, \$1; eggs, 36 to 40 cents a dozen; butter, 25 to 33 cents per pound; pork, 8 to 10 cents; calves, 5 to 8 cents; oysters, \$1.35 to \$1.60 a bushel. Dressed poultry—turkeys, 16 cents; geese, 14 cents; ducks, 16 cents per pound. These quotations are for January 16, 1893. S. L. P. Vienna, Md.

Get HALCYON PILLS, 165 Broadway, N. Y. 25c. postpaid.

Our Farm.

THE POULTRY YARD.

Conducted by P. H. Jacobs, Hammoncton, New Jersey.

EGGS PAY BEST NOW.

IN some sections eggs have been as high as 60 cents per dozen for choice, and 30 cents per dozen has been easily obtained in nearly all of the large cities. When the snow and severe cold place obstacles in the way of the farmer, he is compensated for such difficulties by better prices. The object should be to get as many eggs as possible from the hens. This can be accomplished only by taking a little extra care with the fowls.

The main essential now is to keep the hens warm. The food will not make the hens lay if they are kept in a cold poultry-house. Swollen heads, frosted combs and sore eyes show that something is lacking with the poultry-house. Stop up every crack and crevice, and aim to have the interior of the poultry-house secure from the cold air finding its way in to chill the hens when they are on the roost at night.

In regard to how best to feed the hens for eggs, it may be mentioned that meat is the best egg-producing food. If the money expended for ground grain and soft messes was bestowed on the purchase of meat and bone fresh from the butcher, or even for such foods as fresh blood or liver and a full meal of corn and wheat given at night, the hens would produce more eggs than when kept on a mixed diet of grain.

Food should, however, be varied. The grain will be all the better if it is mixed, and corn, wheat, oats, barley and buckwheat used instead of corn alone. Bulky food is also an incentive to laying, and may be given in the shape of clover hay, cut fine and scalded. Warm water is the best stimulant and invigorator, but the most essential of all is a warm poultry-house.

OPERATING THE INCUBATOR.

If you have an incubator, do not oblige your neighbors by opening the egg-drawer frequently, as the cold air chills the eggs and causes the chicks to die in the shells. Do not cool the eggs, as it is not necessary, and do not open the egg-drawer to turn the "pipped" sides of the eggs up. When the chicks begin to come out, do not remove any of them until all are hatched, but leave them in the drawer. They will not injure each other as much by trampling as will be done the chicks in the shells by a sudden lowering of the heat, which happens when the chicks are removed, as the bodies of the chicks contribute to the warmth of the incubator by the animal heat given off. The temperature for hatching is 103 degrees, which is quite high; hence, a draft of air or sudden chilling of the eggs is a severe shock to the chicks, and especially when they are breaking the shells.

CHOLERA AND INDIGESTION.

Cholera is not a winter disease. Indigestion, due to overfeeding, and making the hens too fat, is a disease usually mistaken for cholera. The cholera spreads rapidly and kills its victims in a short time, often in a few hours, but indigestion may result for weeks. The remedy for indigestion is to remove the cause, which is to give less food and compel the hens to exercise.

GRITTY MATERIAL.

Poultry cannot procure gritty material while the ground is covered with snow. It should be supplied in the shape of coarsely-ground bone or by pounding the broken china, crockery or glass. Oyster-shells are excellent if they can be had, and even coal ashes will be of assistance if nothing better can be obtained. Grit is very important to laying hens.

SITTING HENS AND EGGS.

With the present high prices for eggs and the severe cold weather, it is perhaps just as profitable to sell them as to use them for incubation with sitting hens. It is a very difficult undertaking to raise chicks with hens during the prevalence of very cold weather, and it will probably pay to send the eggs to market and hatch out the chicks later in the season.

YOUNG DUCKS.

To make ducklings grow rapidly, give them ground meat in their food. A pound of ground meat and a pound of ground oats mixed with a peck of turnips, cooked, is an excellent mess for ducklings, and they may be fed four times a day. They will eat a large quantity, but they will also grow very rapidly and give good returns for the food consumed.

A FEW CONDENSED HINTS.

When your hens get sore feet, or have bumblefoot, it means that your roosts are too high.

Use pure-bred cocks always. A mongrel does not pay, and causes loss of time.

Feed sulphur sparingly, as it will cause rheumatism or leg weakness. Never give it in damp weather.

Never bring a hen from another yard into your own, or you may introduce lice and disease.

Give water to chicks so as not to allow them to get their bodies wet, as dampness is fatal to them.

A mixture of two parts of lard and one part of kerosene-oil will remove the rough, scabby formation on the legs of fowls.

Always have your nests removable, and kerosene the roosts (under the upper sides) once a week.

Mating for the show-room and mating to produce show-birds from prize winners are different.

There is more in the management than in anything else. Everything depends on the poultryman.

Give the hens leaves, cut straw or dry dirt, and scatter the grain in it, so as to compel them to work. The good scratcher is always a good layer.

SENDING EGGS TO MARKET.

The number of eggs that are broken on the journey or cracked by the cold is quite large, and those of our readers who expect to ship their eggs in order to get better prices, cannot be too careful in packing them. The egg-crates should be very strong, as they are handled roughly, and they should also be warm. The eggs should be placed in the paper partitions and the interstices filled with oats; over each layer of eggs place, also, two thicknesses of brown paper, and lay several newspapers over the eggs before closing the lid and fastening the crate.

FROZEN FEET.

Frozen feet is a common occurrence when the temperature is below zero. If the fowls can be kept dry, so that the roost will not be made damp, the danger of injury will be but little, but if the hens go on the roost with wet feet and legs, they may be affected by the severe cold, the result being frozen feet. The best remedy is to remove the roost entirely and compel the fowls to rest on hay or straw on the floor.

A WORD TO COMMISSION MEN.

There are hundreds of persons that desire to ship to commission merchants who handle poultry in the large cities, but they have no way of knowing who the merchants are or of procuring their addresses. We receive numbers of letters inquiring who sells poultry in certain cities. Would it not be well for merchants to make the facts known for their benefit, and also for the benefit of those interested.

QUICK-GROWING BROILERS.

To produce quick-growing chicks and also secure them hardy, cross a Wyandotte or Plymouth Rock male with Brahma hens. The chicks so produced will grow to as large size in the same period of time as any from other breeds, and they will have yellow legs and an attractive appearance. It may not be the best cross, but it is as good as any that can be made for the purpose.

CORRESPONDENCE.

CHICKEN-CHOLERA.—I have not had a sick fowl on my place for two years, and I will give my cure for chicken-cholera. It is broken dishes and dry food. MRS. W. C. H.

[The use of broken or pounded dishes serves as grit. The supposed cases of cholera are really due to indigestion, from lack of grit or grinding material in the gizzard.—Ed.]

PEKIN DUCKS.—Pekin ducks are probably the most valuable breed of ducks known today. They are very large, mature early and have white plumage. The ducklings hatch out stronger and seem to grow faster than the young of any other breed, and can be raised anywhere that you can raise chickens. They feather rapidly and grow to good size in from six to eight weeks, which makes them well adapted for the early markets, allowing the highest prices. They are excellent foragers, excellent layers, and with good range require but little feed. The young are not subject to roup, cholera or gapes, like young turkeys and chickens. They will weigh from twelve to fourteen pounds per pair, the first year, without much fattening. As egg producers their record is equal to that of any other breed of fowls. J. P. M.

Bookwaller, Ohio.

INQUIRIES.

Minorcas.—L. E., Chillicothe, Ohio, writes: "How many varieties of Minorcas are in the standard, and what is the weight of a Minorca cock?"

REPLY:—There are two varieties—the white and the black. The cock should weigh eight pounds.

Crossing for Quality.—J. S. G., Logansport, Ind., writes: "I have a small flock of Light Brahmas, and wish to raise some choice table fowls from them. Which breed should I select the male from in order to make a cross for that purpose?"

REPLY:—Probably the gray or colored Dorking would be the best breed from which to select.

Creepers Fowls.—J. M. B., Imperial, Pa., writes: "Please give a description of the creepers fowls."

REPLY:—The creepers are what may be termed short-leg Plymouth Rocks. They are usually barred, though there is also a white variety. They possess no advantages other than having very short legs.

Making the Gobbler Sit.—"Subscriber" writes: "Will 'Old Subscriber,' who mentioned about his gobbler raising a brood, please state how he managed to make the gobbler sit on the eggs and care for the young turkeys?"

REPLY:—All gobblers will not sit on the eggs and cannot be made to raise a brood, but occasionally one will do so voluntarily.

Cold Storage for Eggs.—C. B., Whitaker, Ind., writes: "I notice your suggestion of how to pack eggs away on a small scale. Can you give me a plan for cold storage?"

REPLY:—To arrange for keeping large numbers would perhaps require an expensive outfit. Large refrigerators are used, or special houses with double walls and well filled with ice. Any method will answer if you have plenty of ice, but the eggs must not be kept as low as the freezing point.

TEN SOUTH DAKOTA FARMS.—Improved, rich, level, near town. Price, \$10 to \$20 per acre. GEO. EWING, Delmont, Douglas Co., S. D.

WRITE To the Kansas Trust and Banking Co., of Atchison, Kan., for their descriptive price lists of improved farms in Kansas.

FARMS, MILLS AND HOMES in OLD VIRGINIA, for sale and exchange. Easy Terms. Free Catalogue, R. B. CHAFFIN & CO., Richmond, Va.

IRRIGATED FARMS in the famous San Luis Valley at \$3 to \$25 per acre. Best system of irrigation in the West. Fertile soil, big yield, sure crop, good market. Artesian Wells, Healthy Climate, Good Roads, no Mud. For further information address Depue & Chapson, Garrison, Col.

\$100

Invested in PIERRE now will bring you \$1,000 inside of a few years. Good residence lots, within a few minutes' walk of the State capitol building, can be had for \$100 each. Write us for maps, circulars, etc. STEARNS & ROWS, Pierre, S. Dakota.

Many Old Worn-Out FARMS require so much fertilizing that farms and gardens that the rich, loamy soil of Michigan produces a fine crop without this expense. The near markets, general healthfulness of climate and freedom from cyclones, blizzards, together with good society, churches, etc., make Michigan Farms the best in the world. Write to me and I will tell you how to get the best farms on long time; low rate of interest. O. M. BARNES, Land Commissioner, Lansing, Mich.

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UNLIKE ANY OTHER.

For INTERNAL as much as EXTERNAL use.

Every Traveler should have a bottle in his satchel. **Every Mother** Should have Johnson's Anodyne Liniment in the house for Croup, Colds, Sore Throat, Tonsillitis, Colic, Cuts, Bruises, Cramps and Pains liable to occur in any family without notice. Always ready to use, for Stiff Muscles or Strains. Inhale for Nervous Headache, Illness, Pains, etc. Sold everywhere. Price 35 cts. Six bottles, \$2.00. J. S. JOHNSON & CO., Boston, Mass.

FREE CATALOGUE of finest pure-bred poultry. Send for it. JOHN BAUSCHER, JR., Freeport, Ill.

Fine Black MINORCAS. BEST LAYERS. Eggs for \$1.00 for 13, \$2 for 30 eggs. J. H. CASE, Upper Black River, Bucks County, Pa.

C. C. Certain Cure S. S. For Lice. C. F. For Chicks. These preparations are first-class. Send for catalogue. F. A. MORTIMER, Pottsville, Pa.

OVER 60 RELIABLE HATCHERS at Decatur, Ill. alone. Hundreds of testimonials. **BETTER INCUBATOR** made. Send 4c. for illustrated catalogue. Reliable Incubator & Brooder Co., Quincy, Ill.

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The Monitor Incubator You can get one FREE. Gives SATISFACTION everywhere. Send stamp for large book No. 43. Address A. F. WILLIAMS, Bristol, Conn.

EGGS and FOWLS From 50 Varieties. **LARGEST RANGE IN THE WEST.** My fowls won over 1200 prizes at 10 State shows last fall. For full description send three one-cent stamps and get the finest illustrated catalogue out. 8c. 2c. 7c. CHAS. GAMMINGER, COLUMBUS, O.

HATCH CHICKENS BY STEAM WITH THE IMPROVED **EXCELSIOR INCUBATOR** Simple, Perfect, and Self-Regulating. Thousands in successful operation. Guaranteed to hatch a larger percentage of fertile eggs, at less cost than any other Hatcher. Lowest priced first-class Hatcher made. Send 6c. for Catalogue. Circulars free. Patentee and Sole Manufacturer **GEO. H. STAHL, Quincy, Ill.** Mention this paper.

FARMS FOR SALE IN ALBEMARLE CO., VIRGINIA. Winters mild and short. Health fine. Land good. Prices moderate. Taxes low. Close to the great markets. LEWIS D. AYLETT, Charlottesville, Va.

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Mild and equable climate, no extremes of heat or cold, no cyclones, blizzards or severe storms of any kind. Certain and abundant crops of grains, grasses, fruits and vegetables. No failure of crops has ever been known.

Full information furnished free by the Oregon State Board of Immigration, Portland, Oregon.

BALLS OF FIRE

hurled into the ranks of an army could not have created the excitement and dismay that our

MURRAY \$55.95 BUGGY and \$5.95 HARNESS

have caused among the Buggy and Harness Manufacturers, Dealers and Agents throughout the United States. **FOUR YEARS AGO** we began selling our Murray Buggies and Harness direct to the consumer, barring out all Middlemen in the shape of the Dealer and the Agent, and giving to the consumers themselves the benefits of the immense profits heretofore squeezed and coaxed out of them by that class of men. We were fully convinced that by selling at first cost to the consumer direct, and by giving them the most substantial, the newest styles and the best finished work that could be produced, we would be eminently successful.



What has been the result of our four years' work in reforming the Buggy and Harness business of the country?

The result is simply this—that to-day our name is a criterion of **QUALITY and LOW PRICES.** Our "MURRAY" Buggies and Harness are more widely used than any three makes in the whole country. We have had to increase our Plant from year to year, until now we have the best facilities for serving our customers of any factory on the face of the globe.

WE'VE OUR FIGHTING CLOTHES ON!

and from now and henceforth the war will be more bitter than ever. The support we have received from all parts of the country fully warrants us in saying that we have friends by the Hundreds of Thousands, and with their support, we will the coming season make a record that will even eclipse our past glorious success. All people except fools have enemies—we have ours; they are the Factories, Dealers, Agents and Imitators, who are sore without this expense. The near markets, general healthfulness of climate and freedom from cyclones, blizzards, together with good society, churches, etc., make Michigan Farms the best in the world. Write to me and I will tell you how to get the best farms on long time; low rate of interest. O. M. BARNES, Land Commissioner, Lansing, Mich.

THE WILBER H. MURRAY MFG. CO., CINCINNATI, OHIO, ANNILATORS OF HIGH PRICES AND EXORBITANT PROFITS.

Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Watercress Seed.—C. N. M., Trent, Pa. Watercress seed is listed in many seed catalogues. Send to our advertisers for them.

Alfalfa Seed.—E. C., Huntville, Ill., writes: "Where can I obtain the seed of alfalfa?"
REPLY:—You can get alfalfa of seedsmen who advertise in our columns.

Harness Blacking.—E. W. M., Litchfield, Neb. To make your harness look new, apply, after cleaning them well, a dressing made of one pint of neatfoot-oil, a large tablespoonful of lamp-black and an ounce or two of beeswax.

Grass for Muck Land.—G. A. F., Grand Ledge, Mich., writes: "What would be the best grass to sow on muck land for pasture, until I can get the stumps out, so I can plow it?"

REPLY:—Probably red-top is the best pasture grass you can sow on muck land, if it is too wet for blue-grass.

Scallion Onions.—Mrs. M. F. McC., Colorado, writes: "What is the cause of onion seed producing a large share of scallions?"

REPLY BY JOSEPH:—The cause may be poor seed, late planting or unsuitable soil. Plant on rich, well-drained ground as early as the season will permit, and I think you will usually raise good, sound bulbs.

Whitewash.—M. I. K., Kittanning, Pa. Slake one half bushel of fresh-burned lime with boiling rain-water, keeping it covered during the process to retain the steam. Add to this one peck of salt, dissolved in rain-water; then add five gallons more of hot rain-water and stir the mixture well. Cover it up and let it stand a few days. Apply it hot. Some thin it with skim-milk. The secret of making it stick well is to have good lime well mixed with salt and applied hot.

Best Harrow.—E. L. C., Michigan, writes: "Which is the best tool to use in the spring, on fall-plowed land heavily covered with manure, the disc or spading harrow? I must buy one, and don't know which is the best."

REPLY BY JOSEPH:—It depends on the nature of the soil. Usually, the disc pulverizer works very well when the manure is not coarse. Am not much acquainted with the spading harrow. Perhaps some of the readers of FARM AND FIRESIDE can advise you.

Fish Guano.—S. W., Oregon, writes: "How will fish guano do for trees? I can get it in Portland at \$5 per ton. It comes from Alaska."

REPLY BY JOSEPH:—The best manure for fruits is a combination of potash and phosphoric acid, either in bone-meal and ashes or in any kind of simple superphosphate and muriate of potash (or any other form of potash). Nitrogen is seldom needed, at least not more than to a limited extent. Whether your fish guano is worth its cost depends on its analysis, which you have not given. Possibly it may contain quite a good deal of nitrogen, making it unnecessarily expensive. A simple superphosphate should be much cheaper, and would probably be more effective when applied in combination with a potash manure.

Burning Out Chimneys.—F. F. R., New Milton, W. Va., writes: "How can soot from wood fires be prevented from collecting in tall chimneys to such an extent that it will catch fire and burn dangerously, the more so because it is very apt to occur in dry, windy weather?"

REPLY:—The accumulation of soot in chimneys may be prevented by mixing salt with the mortar used in their construction. The salt absorbs moisture during damp weather, and parts with it to the soot, causing it to scale off. If a chimney is on fire and there is danger that the fire will spread to other parts of the building, throw salt on the fire in the stove or fireplace. Burn out the chimneys during wet weather, or when there is snow on the roof. To do this, put dry straw in the lower part of the chimney and set fire to it.

Clover.—J. L. G., Reynoldsburgh, Ohio, writes: "I seeded twelve acres to clover last spring, the object being to increase the fertility of the soil. Shall I take off a crop of hay and clip once or twice afterwards, or shall I clip once or twice and then cut a crop of seed; or shall I clip and let lay as often as is necessary during the entire season? It is a sandy loam and naturally good land, but has had no clover for years."

REPLY:—In our opinion, the best plan for you to follow would be to cut the first crop for hay and feed it on the farm, carefully saving and applying the manure. Cut and save the second crop for seed. The growth of the clover-roots is said to double between the first and second crops. If you have no stock, you can keep the first growth clipped off until the middle of June, and then save the second crop for seed.

Wood Ashes.—J. N., Michigan, writes: "I can buy unleached, hard-wood ashes for five cents per bushel, or about fifteen cents per hundred pounds. Would you advise me to buy at that price? My land is a clay loam, and there has been considerable wheat raised upon it. Would you advise me to apply on winter wheat or on timothy meadow? Would it injure the wheat to sow it on now, and how much would you sow per acre?"

REPLY BY JOSEPH:—Unleached ashes at five cents a bushel are exceedingly cheap. I would like to have a chance to buy them at that rate. Put them on wherever and whenever you can, and as long as you notice good results from them. As you raise wheat mostly, probably your land will be in need of phosphoric acid more than any other plant-food, and I would advise you to use some sort of phosphate (dissolved bone, bone-meal or whatever you can get to best advantage) with the ashes.

Onion Queries.—G. T. H., Waverly, Mo., writes: "Which member of the onion family is the most profitable to raise for market? Would a piece of newly-cleared timber land, a good, rich loam, be good for onion growing? What are Spanish onions? How much does a crate hold?"

REPLY BY JOSEPH:—Raise that kind of onions for which you have a good and steady market. In many cases, bunching onions will pay better than dry onions. If so, raise bunching (green) onions by planting sets. Sometimes pickling onions pay well. If so, plant

Barletta. Probably the Spanish sorts—Prize-taker, Spanish King—will do well in your locality, and may give you good profits. A "good, rich loam" is good for onion growing, but I should prefer to bring it in good tilth, and in a high state of cultivation, by a preliminary course of manuring and cropping with carrots, beets or other garden vegetables. The crate in which Spanish onions are imported holds a little less than one bushel.

A Flower-pit.—"Pat," Missouri, writes: "I have a pit on the south side of the house, six by six feet, five feet deep, with two feet slope, with glass doors and outside doors for protection when cold. Should young geraniums, started from cuttings in August, bloom in a pit like this, without artificial heat, in winter? Will begonias and foliage plants do well in it? How about the bulbous plants, such as the crocus, Bermuda Easter lily, narcissus, Roman hyacinths, parrot tulips, jonquils and lily-of-the-valley? Can they be relied on to give a succession of bloom if planted at intervals?"

REPLY BY JOSEPH:—I doubt very much whether you will be successful in wintering tender plants, such as geraniums and especially begonias and foliage, in a pit as you describe, unless you take especial pains to protect it by mats or otherwise during cold spells. You may be able to flower hardy bulbs, such as tulips, hyacinths, snowdrops, crocus, etc.

Sub-irrigation.—J. H. B., Skaneateles, N. Y., writes: "Perhaps the plan of sub-irrigation by tile, as described and illustrated in FARM AND FIRESIDE, would work well if applied to the growing of strawberry-plants in a small way in the garden. It would be the ideal way to apply liquid manure. It would not cost much to experiment in a small way. My plan would be to put them under the center of the bed, the tile reaching about a foot above the surface of the ground at each end. At what depth would you advise placing the tile? The beds are about four and one half feet wide. I grow in hills, two rows in a bed."

REPLY BY JOSEPH:—Your idea is all right, and I think would work well if put in practice. It is simply a modification of the water-bench used and recommended by the Ohio experiment station, and a most excellent way of watering small areas. The tile line might be fed from a box, or by means of a funnel at one end; no need of arranging it for turning in water at both ends.

Sorghum.—J. L. H., Elmo, Mo., writes: "I wish to plant several acres of sorghum the coming season for molasses. What amount of seed is required to plant an acre, and what kind would be best to plant? Also, about how many gallons could I expect per acre on good ground? How should it be planted to get the best result, in hills or drills?"

REPLY:—You will find several acres of sor-

SUB-IRRIGATION BY TILE.

ghum a big crop, if you have never had any experience growing it. You can grow it about as easily as a corn crop. Topping, cutting and stripping and hawling to the mill make a great deal of work, which must be done just at the right time. The yield of syrup depends on soil, climate, season and waste in manufacture, but good corn land ought to yield 150 to 200 gallons per acre. Larger yields are not unusual. Half a peck of seed is sufficient for an acre. The Early Amber and the Early Orange are standard varieties. Plant it in hills. Put in plenty of seed and thin out to five or stalks. A good corn-planter can be adjusted to plant it. Plant the seed from one half to one inch deep. Send to the Blymyer Iron Works, Cincinnati, Ohio, for free "Sorgho Hand-book."

Weedy Manure—Crate for Melons.—H. M., Idaho, writes: "What is the best way of composting barn-yard manure to get rid of grass and weed seeds? Our land is clean, and manure can be had for 12½ cents per load, and only one and a half mules to haul it. I am growing fruit, but always plant water-melons—my "Spotted Beauty," a cross between "Dark Ice" and "Phinney's"—between trees for the first two years, and never fail to have a good crop. Can you give me a good plan for a cheap and strong crate to ship in that will hold eighteen to twenty melons?"

REPLY BY JOSEPH:—You certainly get your manure cheap enough, and should use it largely. But don't spoil clean land by putting a miscellaneous lot of live weed and grass seeds on it. Try to bring the manure into rapid fermentation, by piling the fresh article together, and if necessary, by adding a little yeast dissolved in water or urine, or strong, liquid manure. To be sure that every part of the manure comes into heat, the cold outside portions should be carefully put inside when forking the piles over. The ammonia developed during the process of fermentation will most likely kill the weed seeds. If fermentation is not rapid enough to produce much heat and the ammonia not strong enough to kill the seeds, the latter will remain alive and be ready for mischief as soon as the manure is spread upon the land. It is not an easy matter then to destroy the vitality of the seeds. Spreading the compost out in a thin layer and working it over frequently may kill the most of them. Watermelons can be shipped in barrels. Second-hand barrels, such as can be had at cheap rates at the grocery stores (sugar and cracker barrels, etc.), are just as good as new barrels. If you cannot get barrels, make crates of the right size from boards and slats. The exact shape will probably not make much difference, and the size will depend upon the usual size of your melons, if you wish to put just so many into a crate.

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VETERINARY.

Conducted by Dr. H. J. Detmers.
Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to Dr. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Ringbone.—F. M., Rich Hill, Pa. You will find a full description of the treatment of ringbone in FARM AND FIRESIDE of November 15, 1892.

A Swelled Leg.—W. C. W., Horn Lake, Miss. Exercise your horse during the day, and during the night keep the swelled leg bandaged. Use bandages of woolen flannel, put them on nice and smooth, and invariably begin winding at the hoof.

A Swelled Hock-joint.—L. H., Goshen, Ind., writes: "My colt, about four months ago, ran something in his hock-joint, and is a little lame yet. The swelling has not gone down. It is swelled all around the joint. On the inside of the leg it is puffy and soft, but on the outside it is rather hard."

ANSWER:—If the colt, having been hurt four months ago, is yet lame, and the swelling hard and not decreasing, not much improvement can be expected. If you want to do something, it will be best to call in a veterinarian, and have the damaged joint examined. It may be that the joint has been opened, and that partial ankylosis (stiffness) has been produced. In that case nothing can be done.

A Callous Scar.—O. P. H., Hudson, Neb., writes: "I had a mare that got her hind foot caught on a harrow-tooth last spring. It started in about the pastern-joint, and ripped the skin open to the bone down to the top of the hoof. I sewed it up, and it has healed up; but it has left a calloused place, and when she stands in the stable a day or two, it swells up quite a bit. What should I use to take it away?"

ANSWER:—Such a callous scar cannot be removed, except, perhaps, by an operation, and then, unless the wound receives strict aseptic treatment and the healing is carefully watched, the second scar may be just as bad and even worse than the first. On horses' legs all suppurating wounds below the horny wart must invariably produce a horny or callous scar.

Seems to be Bloated.—I. W. H., Humboldt, Kan., writes: "I have a cow that seems to be bloated, and if it had come on suddenly would think it was hoven. But it began some three or four months ago and has been gradually getting larger, until now she seems almost ready to burst. Her eyes have a glassy appearance, walk unsteady, legs are not swollen, urinates very little at a time and makes very small amount of dung at a time, and it seems to be streaked with whitish glitter. Have not seen her chew her cud for about a month. She will be due to calve in about a month. She holds flesh very well."

ANSWER:—You say your cow seems to be bloated, so you are not sure she is. If you are, and know that she suffers from chronic tympanitis, you can easily relieve her by use of the trocar. The place to apply it is on the left side, equidistant from hip, last rib and end of lateral processes of lumbar vertebrae, three points easily ascertained. But perhaps she is not bloated, and maybe the large circumference of her abdomen is caused by twin calves and too much voluminous food. If such is the case, the best advice I can give you is to feed her only small quantities of hay, and to make up with concentrated food, such as bran, corn-meal, etc. If it is bloating, you will find the left flank tympanitic, like a drum-head.

A Capped Knee—A Loller.—M. A., Albany, Mo., writes: "We have a horse that got cut on a barb-wire fence, about two years ago, on fore leg across the knee, and when it healed up, it left a large bunch on the knee. It seems to be loose and like gristle. The horse is not lame or stiff in the knee. Can the bunch be removed, and how?—We also have a mare, eleven years old, that keeps her tongue hanging out whenever she has the bit in her mouth. Can she be broken of this habit, and how?"

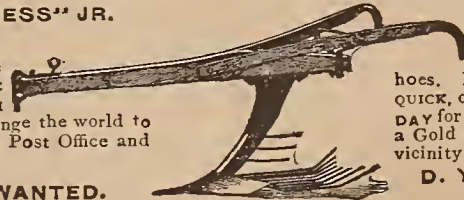
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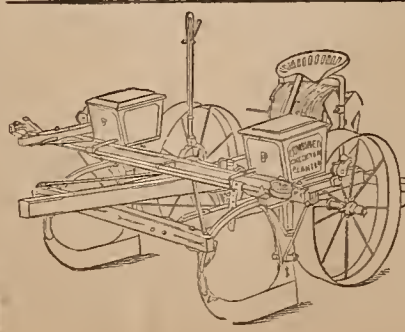


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Our Fireside.

THE OWL'S STORY.

A foot on the belfry stair!

The dusk of the past lay thickly there;
Through the dusk of the belfry came long gold beams,
The air was full of the glitter of dreams;
We owls looked down and we saw a pair—
A lad and a maiden fair.

And they told each other, those two,
That they climbed to our belfry "to see the view!"
They looked through the narrow windows, down
On the gray-roofed church and the red-roofed town;
And then they looked—it was hardly wise—
Deep, deep in each other's eyes!

If you climb to a belfry high,
Look down at the town or up at the sky!
But of eyes that you love, beware, beware,
For love will speak out anywhere;
And it's yes or no—and it is not nay—
And to-morrow's the wedding-day.

E. NESBIT.

His Sister's Lover.

CHAPTER VII.

DRY BONE GULCH.

IT was late in the afternoon when two men, one considerably younger than the other, arrived at the collection of canvas tents known as Dry Bone Gulch.

It was a new camp, very new, as could be told by the absence of rubbish in the lanes dignified with the name of streets. The few empty fruit or meat cans showed that the inhabitants had not yet had time to consume much of such food, or what was quite as probable, had not been able to procure it.

The enterprising trader who combined the business of selling the necessities of life with considerable that was not necessary, and devoted fully one half his canvas store to four tables for gambling, had not been on the ground sufficiently long to lay in a stock of delicacies such as would leave behind, after consumption, targets for pistol practice.

"Did you know there was a town here, Luke?" the younger traveler asked as the two halted a moment to survey the scene.

"No; it is one of those places which spring up in a night. Some prospector struck color here, and a crowd have followed, leaving, perhaps, claims which 'paid fairly well on the chances of bettering their condition. But there is no reason why we should stand like statues, Fred, my boy. In the largest tent I fancy we'll be able to get grub of some kind, and the sooner I have a square meal the better I shall feel. It was decidedly unfortunate we didn't at least find the burrow with my traps, for then we might have come into this town in something like style, instead of being weaponless and very nearly penniless."

"Most likely the sand-storm overtook both the animals, and I dare say if we had looked around it might have been possible to find their bodies."

"It would have been a foolish thing to do, for one could search over Smoke Creek desert a month without running across that for which he hunted."

Four days of hard, incessant traveling had not improved the personal appearance of those who so nearly perished during the sand-storm.

In addition to being foot-sore, they were in the most dilapidated condition as regards garments, and the casual observer would at once have set them down as belonging to one of two classes—unlucky prospectors or unskilful horse-thieves.

Entering the large tent referred to, the newcomers found, even at this early hour, all the gambling tables occupied, and the limited stock of provisions had been left to care for itself, since the proprietor of the establishment was too much occupied with dealing faro to pay any attention to customers who were simply hungry.

Bennett looked around at the scanty display as he said to his companion:

"I reckon a side of bacon is about as much in the way of luxuries as our pocket-books will admit of just now, and even that may strain them considerably."

Then, taking from a box the article in question, he asked as he looked around to discover which of the gamblers was the proprietor:

"How much is this?"

"Five dollars, an' no trust."

"Here's your money. Now where are the potatoes?" and the hungry purchaser laid out the faro table the amount demanded.

"Potatoes? You must be a tenderfoot to think we have all the luxuries of the season before this 'ere camp has been started a week. You'll eat bacon, old man, that's what you'll eat, an' be mighty glad to get it."

"Have you got hard-tack?"

"Plenty in that barrel over there; ten for a quarter; don't take out any more'n you're allowin' to pay for."

Bennett acted as both salesman and cashier, laying the proper amount of money in front of the busy owner of the establishment when Fred had in his arms as much as the two thought would be necessary for the time being.

"D'yer want lodgin's?" the gambler cried as the customers turned to leave the tent.

"I reckon we can get plenty at the creek, an' they won't be as noisy as these," Bennett replied with a laugh.

"A thickness of canvas over your head is better'n nothin', an' you'll find it so before mornin'."

"In that case nobody'll suffer but ourselves. Come, Fred, I'm anxious to get hold of a piece of toasted bacon."

The purchasers left the store, Bennett leading the way to a clump of trees standing near the edge of a small creek, where embers and ashes told it had been used many times before as a camping-place.

"I have seen better hotels than this," the elder man said as he placed the bacon on the ground and began building a fire; "but I must confess that never since I've been in this portion of the country have I struck one with less conveniences."

"What puzzles me is, that a man who has been accustomed to luxuries as you have, can rough it in such a contented fashion," Clayton said as he threw himself on the ground and watched his companion struggle with the green wood which he was trying to coax into a blaze.

"How do you know I have ever known the meaning of the word 'luxury'?" Bennett asked sharply, turning squarely around to face his companion.

"I'm not doing anything of the kind," Clayton replied hotly; "but at the same time I have a right to think as I please."

Bennett made no reply.

It was as if the toasting of the bacon was the most important task of his life, and perfect silence reigned until the labor was completed, when he said:

"Now pitch in, my boy; a cup of coffee wouldn't be at all disagreeable; but you must contrive to get along without it until we reach some place where funds can be replenished."

"Both you and I have seen the time when water would be the most valuable liquid, so far as our necessities were concerned," Clayton replied with a laugh, and then the two, who, under other circumstances, would have grumbled at an over or under done egg, made a hearty and reasonably satisfactory meal on the burned bacon and stale hard-tack.

Having tramped so many miles they were not fastidious about their beds nor the hours they kept, therefore, as soon as the eatables had been disposed of, both stretched themselves out under the shelter of the trees to sleep. Clayton saying laughingly:

"Now that we are among others of our kind once more, I always question my right to lie down on another man's property."

"This hasn't been staked out into claims, therefore I reckon you own as much of it as any one else, so don't let a little matter like

of the country to understand that the command would not be repeated, therefore he obeyed as quickly as possible.

"Now git on yer feet; I want to see what you look like."

This order was also obeyed, and as he arose Fred saw that two half-drunken men were busily engaged making Bennett go through similar manœuvres.

"Didn't you know we'd staked out this claim?" the young man's vis-a-vis asked angrily.

"I don't understand much about such things; but my friend said the land hadn't been taken up, and besides, we were doing no harm by sleeping on it."

"What's the reason you wasn't? This is where me an' my pards bunk. D'yer 'low we're goin' to be turned outer bed by sich sneaks as you?"

But for the leveled revolver Fred would have struck out once more. Under the circumstances it was wisest to hold his tongue.

"Now dance, cuss you, an' step up the best you know how! I ain't goin' to be kept outer bed by tenderfeet without havin' some fun. Git along quick, or—"

The man began shooting directly at Fred's feet as he spoke, and the latter was literally forced to move about very lively in order to destroy his aim.

The same pleasantries were being attempted with Bennett, as young Clayton understood; but that gentleman was not bearing the insult so patiently.

"I don't want any trouble, and haven't got a weapon, but I promise this shan't go on in such a one-sided manner many minutes," he cried, and at this moment Clayton's tormentor shouted:

"What's the use of keepin' 'em? Let go, boys, an' the drinks is on the one what makes the worst shot."

This was serious, for in that place where neither law nor its representatives were respected, the life of a man was of exceedingly small value.

Bennett appeared to pay no attention to his own danger, but sprang to Clayton's side on hearing the remark, forcing that young man to the ground as he struck the bully a blow which sent him headlong.

CHAPTER VIII.

A LETTER.

At the Palace hotel, San Francisco. Room 49.

Two gentlemen, who were last seen after a supper of burned bacon and hard-tack, are sitting in this private dining-room discussing such a meal as an epicure would have had difficulty in finding fault with.

"This isn't much like the lay-out we had at Dry Bone Gulch, eh, Bennett?"

"Well, hardly, although I must confess I had a better appetite then, and it is fortunate we didn't have such a spread before us, or I should have laid the foundation for dyspepsia such as I might have found it difficult to get rid of."

"I wonder where those fellows are whom you polished off so beautifully?"

"Still looking for 'color,' I fancy, and whenever they find it in paying quantities, spending all in some such place as that canvas tent where we bought the bacon."

"Do you know you saved my life that night?"

"Nonsense, boy. It was only a bit of drunken play."

"Yes, and the man you bowled over so beautifully had just enough inside his skin to have shot me simply for sport."

"Perhaps not."

"I am glad he didn't have the chance. Say, you are an athlete of the first water. Where did you study?"

"Picked it up, I reckon, while I've been knocking around the world."

"A man don't 'pick up' anything like that left-handed blow you got in on my friend's chin. It was science, pure and simple. Why, man dear, it was a beauty!"

"I fancy it did seem so to you just at that particular moment."

"It would under any circumstances. That is the second time you have saved my life at the risk of your own, and yet I have another favor to ask."

"Don't want to wait for remittances, and would like to have me advance enough for a ticket, eh? Well, that's just what I proposed doing before we separated for the night, although I shall be sorry to lose your company any sooner than is absolutely necessary. I have plenty for both your wants and mine, so don't hesitate to name the amount."

"Now you're making a mistake. So long as you act as my banker in this princely fashion I am in no hurry to leave, although I shall be obliged to do so when the governor sends on the needful. The favor I am after is much less expensive than supplying me with spending-money."

"Name it, and it is yours."

"Honestly?"

"Why not? What is there I have you shouldn't take if it pleases you?"

"Perhaps you haven't what I particularly want."

"Then if it is in my power—"

"That's enough; I won't allow you to think any longer that it is something wonderful. I simply wish for your photograph."



"CLARK OGDEN ALIVE!" BENNETT CRIED AS HE SPRANG TO HIS FEET.

"Because of your manner of speaking at times. You try to copy the ways of such people as are here, but fail woefully. I don't want to pry into your secrets, but feel positive that something beside a desire to find gold brought you here."

"When you are in such a place as this, remember that no question must be made as to a man's history, for it is oftentimes dangerous. Any story must be accepted as a fact, and—"

"Why?"

"Because a great number of us have done that in the past which shuts out confidences with others. How many in that tent do you suppose could return to civilization without danger of being arrested for some crime?"

"I don't know anything about them, but am certain you can't be classed with the number."

"Why not?"

"Because you are a gentleman."

"Even they lower themselves to the level of the lowest at times."

"I am certain you never did."

"And you are right—"

In his excitement Bennett had risen to his feet as he approached the young man; but he checked himself suddenly, and concluded in a sullen tone:

"It makes no difference what you may think; it had best be kept to yourself. As I said before, don't seek to pry into secrets while you are around here."

that trouble you," Bennett replied in the same tone of levity.

"It can't trouble me very much, for I count on closing my eyes in considerably less than forty seconds. It has been so long since my stomach was full that the mere fact of not being hungry makes me sleepy."

Both were in the same condition, and in a short time were slumbering as only weary men can slumber.

The air was not so cold as to render blankets a necessity, and until midnight the two were oblivious to everything around them.

Then they were aroused in the most unpleasant fashion.

Fred Clayton found himself being dragged along the ground unceremoniously, while the crack of firearms told that some one had imbibed sufficient of the liquid refreshments to be found in the store-tent to make him or them decidedly disagreeable.

"What are you doing?" Fred cried angrily as he struck out with his fist, hitting full in the face the man who was bending over him.

In another instant he saw by the moonlight the gleam of a revolver, and the fellow he had struck cried sharply but thickly, as if his tongue refused to obey the befuddled brain:

"Come off, you cussed tenderfoot! Put up your hands or I'll make a cullender out of you in less time'n it takes to tell it!"

Fred could see the weapon leveled at his head, and already knew enough of the customs

"Mine?" and now Bennett looked disturbed. "What foolish idea have you in your head now? Men don't exchange such things after passing the calf-stage of life."

"But this isn't for me."

"Who then?"

"My sister Ruth. I want her to see the face of the man who, on two occasions, has saved my life at the risk of his own. If I could have tempted you to come with me to New York the request would not have been made; but since you have so persistently refused, the only thing left is to take your counterfeit presentment. She will have it framed, and perhaps, burn candles before it, for you have no idea how much she thinks of a worthless scamp like myself."

If Fred Clayton had not been so deeply occupied with his own thoughts he would have observed that Bennett was clutching the edge of the table hard, as if to control some sudden emotion; but he gave no heed to anything of the kind.

He was thinking only of his sister, and the pleasure he would give her in showing the features of the man who had done such great service for him, therefore even the pallor on his companion's face escaped unnoticed.

"There is no chance to refuse, for I shan't take 'no' for an answer," he continued lightly. "It is either yourself or the photograph, so you can choose; but I had much rather have the original. Say, old man, do you know I think you would be just the sort of fellow that would please Ruth? She's always talking about manly courage and all that sort of thing."

"Perhaps my courage would fail me in those affairs which she counts as of the most importance," Bennett replied, and a close observer would have seen that he was striving very hard to speak in a careless tone.

"Don't you suppose I know her? Don't you fancy I can see even now how the blood will come into her cheeks when I tell about your carrying me on your shoulder during the sand-storm when there wasn't one chance in a hundred you'd get through alive? Why, man dear, she'd come as near falling down and worshipping you as a well-behaved girl could. Why won't you go home with me? If it's a question of money I know the governor will be only too glad to arrange it all in the nicest possible manner."

"If it was a question of money, and I could go, my dear boy, I shouldn't hesitate; but I assure you it is absolutely impossible for me to visit New York, either now or at any other time."

"Shall we never see you there?"

"Never."

"Well, since you say it in such a decided and mournful fashion I must believe it; but I'd give a good bit to know why you are so prejudiced against the city."

"It is only that I can't go so far from San Francisco."

"And yet you have not only told me you knew no one here, but that you had no ties which bound you to this or any other portion of the world."

"Did I say that?"

"Yes, and also suggested the possibility of a visit to Japan in the near future."

"That may happen; I would like to see the country."

"But you won't be allowed to leave without first giving me your photograph, even if I am obliged to remain here during the coming year. Why, Ruth would never forgive me if I came back without it, and I assure you there are plenty of gentlemen East who would be delighted to have their portrait the object of so much admiration as Ruth will bestow upon yours, when my story has been told."

"I do not question the honor, my dear boy," Bennett replied gravely, and in such an odd tone that Fred looked up in surprise, "but at the same time I must refuse."

"Do you mean that I am not to have the picture?" and young Clayton leaned over the table as if the surprise at such a decided refusal was too great to admit of words.

"That is it exactly. There are private reasons, and I beg you will accept this poor explanation without further question, for the thing is impossible. God knows there is no person in the world whose good opinion I should value as highly as your sister's; but at the same time I cannot grant the request."

Fred Clayton sat staring at his friend in speechless astonishment, and yet, because of what had been said, he could not question him further.

It was inexplicable to him that such an ordinary request should have been refused as if it was something of the most serious nature, and he simply felt bewildered.

"We won't speak of it again," Bennett said, trying to change the subject of the conversation. "Are you thinking of leaving San Francisco soon?"

"When father sends the money so I may be able to pay my debts and buy a ticket."

"If you are in a hurry to get home there is no necessity of waiting for anything of the kind. You know very well that my pocket-book is at your service, and as for what I may have advanced, you will do me a favor by forgetting it as soon as possible."

"Does that mean you want to get rid of me?"

"Now you ask a foolish question. It would please me if you were forced, by financial straits, to remain with me during the next five years, for a man eats his heart out when he is alone, and you are a very pleasant companion."



Every farmer's wife knows how necessary it is that the milking buckets, pans, churns, and other implements of the dairy be perfectly clean and free from taint. A common yellow soap that smells of rosin should never be used for washing these. Such soaps are made of materials that you would not use for any purpose. Besides they are sticky and will get into the cracks and corners and stay there. Ivory Soap is pure, it is well made, and only sweet clean materials are used. Then it rinses readily. Ivory Soap is 99 $\frac{1}{100}$ per cent pure.

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"I wish I understood you, Bennett."

"It would be an immense amount of satisfaction if I understood myself."

Clayton made no reply to this ambiguous remark; he was busily engaged trying to make out what it meant when a waiter entered, and asked:

"Is Mr. Frederick Clayton dining here?"

"Yes," the young man cried quickly.

"You directed that when a letter came for you it should be delivered immediately, no matter how much occupied you chance to be."

"Of course that was what I said, stupid. Have you got one?"

The man drew from his pocket two envelopes, one bearing the stamp of a business house, and the other of that shape which told the sender was a lady.

"From the governor and Ruth," he said as he took the missives. "Well, since the sinews of war are what I most need just now, I'll open this first."

Bennett watched the young man as he tore open the envelope and examined the amount written on the inclosed check before reading the letter.

"It's all right," Clayton said at length. "Father has sent an even hundred more than I asked for, so I must admit he still entertains some affection for his only son. Here is a line which particularly concerns you, Bennett. To the noble man who saved your life, say that a father thanks him, and if it is possible, bring him back with you. I would like to thank him with my lips instead of my pen."

"He is very kind; but I do not deserve his gratitude as much as he thinks," Bennett murmured.

"Here is what Ruth says. Listen; but don't grow vain: 'You must certainly bring Mr. Bennett here. I can fancy him carrying you through that dreadful storm of sand, and think no picture could be finer than that of one man saving the life of another at the possible expense of his own.' Say, they're laying it on pretty thick, eh?"

"It is a hundred times more than I deserve."

"Nonsense; but let me finish my letter before we discuss that matter," said Clayton buried his face in the closely-written sheet.

"Say, by Jove!" he suddenly cried. "Here's something curious! Do you remember my telling you about a fellow by the name of Clark Ogden, who was supposed to have been killed at sea?"

"Supposed?" Bennett faltered.

"Yes, that's the very word, for it seems he wasn't dead at all. He's in New York to-day, or was when this letter was written."

"Clark Ogden alive!" Bennett cried as he sprang to his feet, quivering with suppressed excitement.

"That is what Ruth says. She has seen him, but hasn't yet had an opportunity to hear his story."

"When does the next train leave? Find out at once; we cannot afford to lose any time!"

"Are you going home with me?" Clayton asked, surprised to the very verge of bewilderment by the sudden change which had come over his friend.

"Yes, yes! Hurry! We may lose a chance to leave, and the very moments are precious to me now!"

Fred left the room with the air of one who fancies he is taking leave of an insane person, and when Bennett was alone he murmured to himself:

"Thank God the stain of murder is lifted from my soul; but it will avail me nothing with the woman I love, because I did not tell my story when there was an opportunity to account for Ogden's disappearance."

JAMES OTIS.

[To be continued.]

A HOME IN THE SHENANDOAH VALLEY.

Convenient markets, good soil, pure water and excellent climate are advantages to be considered when looking up a home, business location, farm, etc. West Virginia, Maryland and the Shenandoah Valley, Virginia, affords these with many more advantages. No section of the United States offers superior opportunities, and persons seeking a new home should examine these States before deciding upon a location elsewhere. Improved farm lands adapted to stock raising, dairying, grain, grass, and fruit growing can be obtained at low prices and upon easy terms. Thriving towns invite the merchant, mechanic and business man. Abundance of coal, timber, ore, water power, etc. Free sites for manufacturers.

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Our Household.

FALSE KINDNESS.

The softest little fluff of fur!
The gentlest, most persuasive purr!
Oh, everybody told me that
She was the "loveliest little cat!"
So when she on the table sprang,
And lapped the cream with small, red tongue,
I only gently put her down,
And said, "No, no!" and tried to frown;
But if I had been truly kind,
I should have made that kitten mind.

Now, large and quick, and strong of will,
She'll spring upon the table still,
And spite of all my watchful care,
Will snatch the choicest dainties there;
And everybody says, "Scat! scat!"
She's such a dreadful, dreadful cat!"
But I, who hear them, know, with shame,
I only am the one to blame,
For in the days when she was young,
And lapped the cream with small, red tongue,
Had I to her been truly kind,
I should have made that kitten mind.

—Marian Douglas.

TAKING CARE OF ONE'S CLOTHING.

MRS. WARE called with her friend, Miss Fecht, to spend the evening. I had been detained a little too long at the office, and lingered a little too long at supper, consequently hadn't the entranceway and parlor lit up, but as Nanette let them in, I gave the final dash of "May bells" to my mouchoir before tucking it in my belt, and hurried in to receive them.

As I was lighting the big lamp, Mrs. Ware, who feels perfectly free to speak of all my belongings, said to her friend, "Just hear the swish of Christobel's skirts: You've never gone and indulged in the extravagance of a silk skirt, have you?"

For answer I partly lifted my dress skirt. "She has! And an iridescent silk, too! Isn't it lovely? Where did you get it?"

"Oh, only one of my wedding silks dug out of the depths of my trunk."

"Well, it is too astonishing what you do get out of that trunk."

I'll tell you why. I never was hard on my clothes, to begin with. Then, I always took good care of everything. Again, I seldom indulged in too pronounced styles of anything and I always got good values. So many times when a garment was done with I have had it thoroughly cleaned and put away. After the intervening of a year or two I could bring it out, make it up again, and everyone having forgotten it, I could seemingly present a new appearance.

In one way it is fortunate; in another very unfortunate. I manage to appear well on a very slender income, but I get the reputation of being extravagant for that very faculty.

Sometimes I have a fabric colored for the girls, and immediately they have a new dress, and "how that woman dresses her girls so lovely is a mystery to me," confidently remarks Mrs. A. to Mrs. B.

Bonnets and hats are often remodeled at a very slight expense, and makes them do another season.

That we are not alone in this, listen to the directions given for care of your apparel by a woman who always appears well dressed:

"It is no special secret. I have simply learned the art of taking care of my clothes, and estimate that I save hundreds of dollars thereby every year. The instant I take a heavy dress off I shake the skirt lightly, pass a brush through its silk ruffles, and remove every particle of dust from both material and trimmings. It is then slipped over a wire rack to prevent limpness in hanging, a big violet sachet is hung inside, and the whole enveloped in a long, loose, white cotton bag, that draws up with strings and keeps it clean, crisp and perfumed.

"The waists of my frocks," continued the thrifty narrator, "are never hung, under any circumstances. I have roomy pasteboard boxes for everyone of them, lined with cotton batting that has been liberally sprinkled with sachet-powder and incased in pink or blue muslin. A slip pasted on the end shows me which bodice is in the box, and consequently there is never the least confusion. After brushing a waist I lay it at full length, pull out its bows, pass the lace through my fingers, and smooth every inch of ribbon. Next I proceed to

stuff the sleeves and shoulders with tissue-paper, crushed lightly and thrust in to hold the garment in shape. Unless you have tried the scheme you have no idea how it preserves the fine lines and freshness of basque or jacket. Another important rule I observe is never to put a bodice away with a tarnished neck ruche or stained shields.

"One is always less hurried when disrobing than dressing, and it is impossible to infuse clothing with that delicious subtle fragrance every woman covets, unless she is fastidiously dainty in these details. After every two or three wearings I wash my shields in warm water, clouded with ammonia, and dry them in the sun.

"I appreciate how much trouble it demands," added the well-dressed woman. "but it is all done in those odd minutes that would otherwise be lost. If you once acquire the habit of caring for your clothes, such attention becomes second nature. For example, I never take off a pair of boots without immediately lacing or buttoning them on their trees and rubbing thoroughly with a soft flannel cloth. Treated thus shoes will wear six months longer than ordinarily and are always shapely and brightly polished. Then I use cast-off evening gloves to protect the toes of my patent leathers. By cutting off the fingers and slipping the suede up over the foot of the shoes, they are protected from sudden changes of temperature and dust, both of which cause them to crack badly. Frenchwomen preserve the forms of their slippers by binding a strip of whalebone to fit in heels and toes and spring in the center—an easy, inexpensive contrivance, and when used, the slipper never loses its narrowness of outline. Of course, I spend more time over my hats and bonnets than all the rest of my things put together. Between wearings each one sits in its special stand in my armoire, upright wooden pegs, with flat, flaring tops, that hold them firmly and are not so apt to allow crushing as when they are kept in boxes. Immediately one is taken off, I dust with a soft velvet brush, smarten the trimmings between my fingers, straighten and roll the strings in smooth, tight wads, so when unpinned again they are fresh and free of wrinkles. It is a good plan to hold a bonnet near the fire for an instant before putting away, as dampness is the enemy of velvet, flowers or feathers, and a little heat is a preservative. With paste and scissors I make huge tissue-paper caps to sit over my hats, that are big enough not to touch them and yet exclude dust."

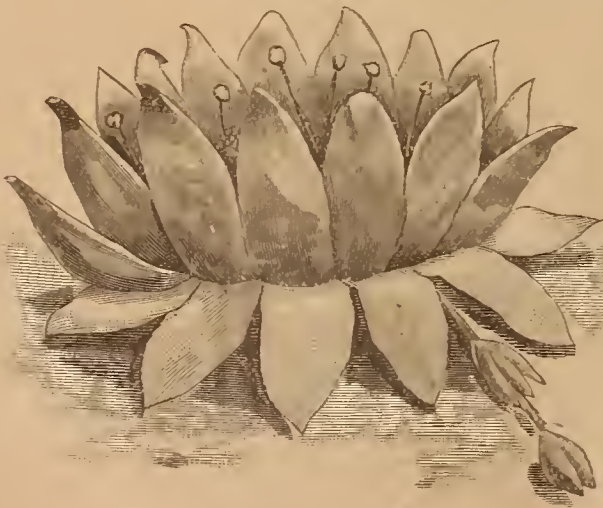
There is nothing that tells worse than neglect. Quietly a corroding death settles upon neglected things—dust, mold, rust—any of these more fatal than constant use.

How is it that in some families dresses of elegant stuffs are handed down from one generation to another? Only that they were well cared for, well packed when put away, and their beauty lives for another generation after the original owners have gone.

—LOUISE LONG CHRISTIE.

HOME TOPICS.

How to CARVE.—Let each boy and girl in the family learn to carve as soon as they are old enough, and practice often enough



POND-LILY LAMP-MAT.

to not grow worried and nervous when they are obliged to perform this duty.

The first requisite for the carver is a sharp, thin knife, and the next is self-possession and the determination to not be hurried. The plate should be large enough so that the carver can turn the piece of meat if necessary, and so that the slices when cut may be laid neatly at one side.

A roast of beef should always be cut in very thin slices across the grain. A rib roast will carve easier if the ribs are taken out and the thin part rolled around the other and fastened with skewers. Care must be taken that these skewers are removed before the roast is put on the table, or they will be in the way of the carver.

A leg of mutton should be put on the plate, with the thickest part uppermost. Begin to carve by cutting slices from the center. These are the best, as near the knuckle the meat is not so juicy.

To carve chickens, turkeys, etc., place the fowl on its back, and insert the fork with one tine each side of the breast-bone, about an inch back from the front end. Cut off the wing nearest you first, then the leg and



PRETTY WALL DECORATION.

second joint; then slice the breast until a rounded piece appears. Insert the knife between that and the bone and separate them. This is the choicest part of the breast. After this turn the fowl over a little, and just below the breast you will find another choice bit called the "oyster," which you can separate as you did the inner breast. The fork need not be removed during the entire process. It is best to carve one side of the fowl and serve it before beginning on the other side; then if more is needed, turn the fowl over and repeat the process. The platter should be placed so near the carver that he can reach it easily.

In carving, as in everything else, it is experience that gives one confidence in their ability, and it is this confidence which enables one to perform the task with perfect ease and grace.

CHILDREN'S DRESS.—Noticing children on the street, in homes, and wherever I meet them, I am forced to conclude that many mothers do not realize that the chief charm of childhood is its simplicity, and that the more simply a child's dress is made the more becoming and suitable it appears. A natural child is happiest when clothed in a dress that is comfortable and that will not be injured by romping, health-giving play. No mother who does her own sewing can afford to spend her time and strength in needless stitching. More mothering and less dressing is what many children need.

In sight, from my window, lives a young mother who has four children to sew for. She makes all their clothes neatly, but in as simple a manner as possible, and in place of sitting all day at the sewing-machine, growing tired and nervous, which is another name for cross, she finds time every day for a walk in the fresh air with them, and many a lively romp do they have together since the snow came. As a result of this the children are always healthy and rosy, and the mother keeps the bright eyes, clear complexion and rosy cheeks of her youth.

Oh, mothers! the days of your boys' and girls' childhood will soon pass away. Dress them comfortably and plainly and try to be a mother to them in the truest, fullest sense of the word. You cannot afford to spend your time making elaborate dresses and thereby lose their sweet society, for by and by they will be gone. The happy days when you can hear their prattle and look into their fresh young faces, can answer their questions and share their childish joys and sorrows, will all too soon slip away, and how much more precious will be the memory of loving companionship and gentle, patient guidance than of little bodies clothed in purple and fine linen, while, mayhap, little hearts went hungry for mother-love, or grew wayward for lack of mother's loving care.

—MAIDA McL.

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FANCY WORK NOTES.

So many pretty things can be fashioned from the odds and ends of plushes, silks and ribbons, if one is careful in saving them.

There are two ways of caring for such articles; one is, to cram all the left-overs into a big bag, cotton, woolen, silk and plush, all huddled together until wanted, and then pulled out so creased and wrinkled that it seems as if "nothing could be made of that," and it is put back again as worthless. The other way is to put every piece, neatly folded, into a long box: the handsome hat ribbon carefully rolled over a piece of cardboard to take out creases made by tying into loops or bows, the bits of lace wound around ribbon blocks or large spools, and the box securely covered and put upon the shelf in one's closet. Such treatment will always find one able to supply the hasty demand for fancy articles for fairs, for birthday presents and for Easter, for the custom of giving something more than the nest of eggs is gaining every year.

A pretty wall decoration for one's own sleeping-room is made from wide sash ribbon of a color to match or harmonize with the prevailing color scheme of the room. Five eighths of a yard will be required; fringe both ends to a depth of three inches, and fasten little silk tassels among the fringe, having the tassels shorter than the fringe. Tie it nearly in the middle with ribbon of the same shade and about an inch wide. On one end sew a small calendar, and letter above it "Time flies," in gold. On the other end tack a very small thermometer, with "Summer's noontide air" lettered down one side of it, diagonally.

PINCUSHION.—To look at the illustration, would you ever believe so pretty a cushion could ever be made of a large spool and a few bits of silk and velvet. Nevertheless it is true, and this is how it is done. Cover the top of the spool with cotton, and over that draw tightly a piece of cotton cloth, taking care to have the top stuffed very full and even, and fasten down around the spool. Over this put a piece of brown velvet or plush, and secure in the same way. Next take a piece of yellow silk, twice the circumference of the spool, join and shirr, leaving a frill at top and bottom. The top frill is sewn to the velvet cushion, and the joining covered with a cord. The lower frill is left loose, covering the base of the spool. On one side a tiny thermometer may be placed, and a dainty pincushion for either bureau or sewing-table will be had for very little outlay of time or material.

CROCHETED CAP FOR LITTLE BOY.—Materials: Two skeins Columbia Germantown and an ordinary bone hook. Chain 9, and join in a ring.

First row—14 double crochet under the chain.

Second row—1 double crochet into a stitch, taking up both horizontal loops, 2 double crochet in next stitch; repeat all around, and there will be seven increases in the round.

Each row will be like the second, except that there will be one more stitch between the increases, increasing in every round until the crown measures nine inches in diameter.

Then work one row without increase; now decrease in the same proportion that you increased, by skipping a stitch for two and a half inches, or until the measure is the size required.

For the head-band work three and a half inches without increase, then fasten off. Turn up the band an inch and a half and sew down. Sew a circle of cord in the center of crown, carry three straps of cord across the crown to the side of the cap, where another circle of cord is sewn over the turned-up band, and under this, two ends, finished with tassels, are attached.

POND-LILY LAMP-MAT.—The materials needed for this mat will be one fourth of a yard of olive-green felt, one half of a yard of white felt and one quarter of a yard of yellow felt.

Take a circular piece of cardboard, two inches larger in diameter than the base of the lamp for which you intend it; cover this with something dark (foulard or silesia) on both sides. Cut enough leaves of the green felt to go around the circle twice. The leaves are cut in the shape of a flat-iron, four inches from the sharp point to the base, where it is but one and a half inches.

In sewing on, fold the sides over a very little. Then cut enough white ones to go around three times, sewing the white and green ones closely together, so as to not quite cover the two inches allowed over the base of the lamp. Now take the yellow

felt, and cut a strip one and a half inches wide, and fringe out by cutting very fine to the depth of more than an inch, and sew close to and inside the white leaves. Then cover the center with a circle of yellow felt.

Then take a strip of green felt, one inch wide, and sew neatly around large, wooden knitting-needle one foot long. This is for the stem. Take a small piece of yellow fringe, about four inches, roll, and sew on it four white leaves and over that four green leaves, and you will have a large bud, which sew to the end of the stem.

Make a smaller bud of three leaves of each and a stem, and then sew both buds together, and fasten under the mat, allowing the buds to fall gracefully beyond the full-blown lily.

HATTIE WILLARD WETMORE.

SHE APPRECIATES FARM AND FIRESIDE.

We have taken your paper for over nine years, and I have never written any letters to you, so I do not know whether you will print this or not. Anyway, we like our FARM AND FIRESIDE very much indeed.

Allow me to wish you a happy New-Year, and thank you for all the good things you have given us to read during the past year. I would also like to thank the kind sisters whose letters in the FARM AND FIRESIDE have brought to me, out here in Missouri, so much comfort and encouragement. It does me good to think there are other women living on farms quite as much away from the world as I am, and who must toil, too, yet they manage to throw brightness around them. I have three young children, the oldest but four, and I am very busy.

A great trial for me are the thunderstorms which are always so frequent and so violent here during the spring and summer. I have tried my best to overcome this fear, but I cannot, although I trust in God.

A READER.

NAPKINS.

A quaint legend is to the effect that when Diego de Torres, the Spanish ambassador in 1547, first dined with the emperor of Morocco at his court, he was amused by the customs at the table. Neither knives, forks or spoons were provided, but each person helped himself with his fingers, and no provision was made for cleaning the hands, except in the case of the emperor.

By his side stood a small black boy, and as he helped himself to meat, he ran his fingers lightly over the woolly head. The incident amused the ambassador. Observing it, the emperor asked how Christian kings wiped their hands at table.

"With fine napkins," was the reply.

"And what are they worth?" asked the emperor.

"Sometimes a crown or more apiece," returned the ambassador.

"Don't you think this napkin is much better," said the emperor, again wiping his hands on the black boy's head, "which is worth seventy or eighty crowns?"

As table etiquette and style vary in different parts of the world, so napkins vary in style, texture and fabric. The most beautiful are of exquisitely fine linen, woven in innumerable varied patterns, many going so far as to have the family name woven into the fabric. The shapes and sizes vary according to the use to which they are to be applied, the smallest being the doilies for the tea-table use, up to the large, square dinner napkins.

They come in pure white, striped with red, or in delicate colors of buff, pink or blue, to match the cloth. It is very nice to have the cloth and napkins match in pattern as well as color. Years ago the favorite pattern with most housekeepers was the snowdrop design. Now there are many to select from, being all designs of flowers, leaves or geometrical designs.

A careful housekeeper will often fashion her own napkins out of material calculated to stand the test of frequent laundering. The material known as glass linen, marked off in squares by two threads of red, is very good for every-day use. It comes in half-yard width, and a square of the width makes a very convenient size. Fringe the edges and whip them very closely. The best quality wears the best.

If one has the opportunity to be at a linen sale in a large city, on days when they have special sales of linen, good bargains can be obtained. For a long time we used a good quality linen diaper, of the quality formerly used for children's aprons. If care is used they can be changed twice a week, and look well, but if they are used as towels or handkerchiefs, it is better to change them every meal. Nothing is nicer

than neat eating, and if one is brought up to it, it is a letter of patent wherever they may go.

At a large table of promiscuous people, those well bred can be readily distinguished by their manner of eating.

The napkin should always be used on the lips before they are put to a glass or cup, and the lips should never be allowed to look greasy or stained with the food.

Red napkins are out of use among the most refined, many preferring a paper one to a second-hand red one.

Very small napkins are nice to lay over cake, bread or crackers. These can be made of the better parts of old table-linen or fine towels, or better yet, of a firm quality of shirt-bosom linen. These can be beautified by drawn-work, hemstitching, or simply fringed and a large initial put on in wash silk. It is pretty work to catch up in idle moments, and one's supply can be kept up in this way without feeling it.

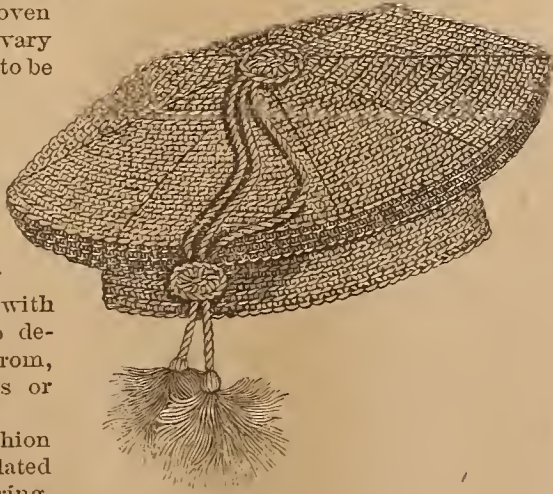
LOUISE LONG CHRISTIE.

RECIPES AND RECOMMENDATIONS.

This is the season for buckwheat cakes, but some housekeepers never put them on their breakfast-tables, as they say it is impossible to make buckwheat cakes that are not sour. The writer has made buckwheat cakes for a number of years, and they always come upon the table light and sweet. The secret of this sweetness lies in the yeast. She never uses any but dry yeast (fresh, of course) dissolved in milk-warm water. If the yeast is too old, it will not raise the batter properly; but if it is sufficiently fresh, and the water is of the right heat, both for dissolving the yeast and mixing the batter, the cakes will necessarily be good unless left in too cold a place over night.

I always shudder when I read advertisements of "almond-meal" for improving and beautifying the complexion. The oil contained in almond-meal may, to some extent, beautify the skin and make it smooth, but it is better to do without such a beautifier than to run the risk of becoming a "bearded woman," fit to pose as a freak in a dime museum or to travel with a side-show to a circus. There is no question that almond-meal promotes the growth of hair on the face. I knew a lady who used it, on whose lip sprang up a genuine mustache, and whose cheeks were thickly covered with down. That this disgusting growth was caused by the almond-meal was evident from the fact that previous to its use she had never been troubled with any growth of that nature. Don't use it!

If you are furnishing a room to which you desire to give an air and style, be sure, over the shades at the windows, to hang long curtains. These curtains may be of any inexpensive material that is thin and pretty and through which the light may be admitted. Striped or dotted Swiss is, in my opinion, prettier and in much better taste than the cheaper grades of lace, which have a very common effect and are much more difficult to launder well. If desired, these curtains may be held back with ribbons which harmonize with the prevailing color



CROCHETED CAP FOR BOYS.

employed in the furniture of the room, but they look much better if left to hang loose from the pole. The housekeeper may exercise her taste in the arrangement of the curtain over the pole at the top, as the style which prevailed so long, of fastening with pins and rings, is now less in favor than it used to be, the top of the curtain being drawn entirely over and concealing the greater part of the pole.

If your hands are chapped and sore, or if the skin looks red, rough and coarse, I know the remedy which I make use of in the winter will surely benefit them. It is a preparation of glycerine, rose-water and

tincture of benzoin, which is applied after washing the hands in warm soft water, and pure white, unscented soap. It is better, if possible, to leave the matter of the proportions of this wash to the druggist, as he knows, better than an amateur, just how much benzoin will mix well with the other ingredients and just how much may be safely used without drying the skin. Try this recipe. I think it will work well.

Try to learn something every day; that is the way to keep up with the procession, for this is a swift and rapid age. If you are



PINCUSHION.

the mother of a family, don't let the children get to thinking that mother is a fossil and a by-gone. Don't think it isn't necessary for you to improve yourself because you are middle-aged, and on the shady side of life. The more you widen the sphere of your thought and knowledge, the more likely you will be to keep your mind and retain your faculties in extreme old age, if it should come to you. A prominent literary woman of this country began the study of Greek when she was sixty-two, and in two years afterward was able to read, understand and enjoy works written in that language. Not that Greek will be likely to be the branch of knowledge most useful to mothers and home-makers, but learn something. I heard a fashionable woman say she was so ignorant that if her child should come home and ask her a question concerning her lessons, she could not answer her. Another mother, whose child asked her where Niagara falls were located, was obliged to say she did not know.

MARION LEROY.

MONOTONY IN LIVING.

An able writer says that "monotony is the dry rot of married life;" and another that "variety is the spice of life." Never were truer sayings. Sometimes, but not always, it lies in the province of the house-mother to make frequent changes, and when circumstances do put the power in her hands, she is wise who makes the best use of it.

It is quite true that some men growl and grumble if the sofa stands in a corner when it formerly stood on the side of the room, or if the bedstead is turned around, but in my experience the men who grumble are those who are very seldom in the house, and so should have the least to say. But the woman who for days and weeks sets the same kind of food before her family, is making a greater mistake than the grumbler.

I knew a place once where potatoes, boiled in their jackets and peeled before coming to the table, fried salt pork and hot biscuits were the everlasting breakfast menu. It is true, fresh meat—beef, veal, pork or mutton—were not to be had, but she had both milk and eggs, and what a variety of good things she might have set before us if she had but given the matter a little thought. Even had she soaked the salt pork in sour milk over night, rolled it in flour and fried it; mashed or roasted the potatoes, scalloped or fried them once in awhile, how good it would have tasted. A friend of mine, whose resources are very small, has resorted to giving breakfasts, dinners and suppers in imitation of certain geographical districts; for instance:

A breakfast of well-boiled potatoes with cream will form the hot breakfast dish of a traveler in Ireland. Tea and toast with a bit of fried fish and a rasher of bacon, an English one. Coffee and cakes, a German. Chocolate and rolls, a French breakfast,

and oatmeal and milk or cream, a Scotch one. And then when they have a typical American breakfast how good it does taste. Sometimes they are treated to a New England boiled dinner. In this the pork or corned beef is put to boil early, and the cabbage goes in pretty soon after, next the turnips, and later potatoes. She does not consider carrots and beets an addition. Tomato catchup and chilli sauce are served with this, and johnny-cake divides honors with the baker's loaf. It is made with buttermilk, eggs, soda and a very little flour stirred in with the corn-meal, not forgetting a pinch of salt and a dessert-spoonful of New Orleans molasses. One egg is sufficient for a pint of milk. Pumpkin pie is the dessert.

Calf's head is the basis of her French dinners. The butcher splits the head open for her, and removes the nose. She lays it in strong salt water for two or three hours, till when washed, the meat is white; the brains are removed and bits of bloody tissue carefully pulled away, till they are quite white, when they are set in a cool place. The remainder of the head is put to boil with a bouquet of sweet herbs—summer savory and thyme and parsley and a bit of bay leaf—salt, pepper, and a wee pinch of celery-seed. The fire must be slow and the broth skimmed constantly. When the meat falls from the bones, the head is placed in a colander to drain. The meat is separated from the bones, and chopped into bits as for salad. The broth is strained, and the meat put back into it, a grated onion added, and a bit of vermicelli which has been already boiled in salt water, and the juice of a lemon. Season to the taste with salt and pepper and catchup or tomato juice, and if it is still too thin, stir a tablespoonful of corn-starch into half a cupful of milk till it is smooth, and add to the soup.

The brains are rolled in flour and fried in drippings, and served on a hot platter with Saratoga or potato cubes, fried brown and crisp, around them, with a bit of parsley for garniture. The tongue will be peeled while hot, and when cold, thinly sliced, and prettily garnished for supper. And, by the way, a pot or two of the most ornamental parsley-plants in the kitchen window is not only pretty in itself, but judiciously applied makes many a common dish assume a most appetizing appearance.

This housekeeper gives us German dinners and English ones, and New England baked beans, with rye and Indian brown bread, and baked Indian pudding that surpasses even the queen of puddings, for dessert. So that when there is a busy day, with only time enough to prepare potatoes and broiled steak, and a dessert of oranges and bananas, we think it is real good.

G. D. R.

TRIED RECIPES.

LEMON PIE.—For one lemon pie use one cupful of white sugar, two eggs, two small lemons and one half cupful of good, sweet cream. Beat the yolks of the eggs light, add the sugar and beat again; then add the juice of both the lemons and the grated yellow rind of one, being very careful not to grate any of the white rind or the pie will be bitter. Line your pie-tin with crust, add the cream to the mixture just before putting in the oven. Bake until the custard is firm, draw to the front of the oven and spread evenly over the top a meringue of the whites of the eggs beaten stiff with two tablespoonfuls of finely-pulverized white sugar. Return to the oven until it sets. To be eaten cold. Do not use corn-starch and no more cream than directed. Please try this recipe, Christie Irving, Maida McL. and others, and report.

COOKIES.—One cupful of light brown sugar, two cupfuls of best Orleans molasses, two cupfuls of good, sweet lard, one tablespoonful of soda dissolved in one cupful of cold water. A tablespoonful of ginger may be added if desired. Flour to roll out good. I am an old subscriber's recently married daughter, so have read many numbers of the FARM AND FIRESIDE, and I never noticed either of these recipes in its printed pages, so I send them. MINERVA I. K.

OMELETS.—To have a good omelet, for every egg you use take one tablespoonful of water, no more. Beat whites and yolks separately and very light. Add the water to the beaten yolks and beat again; then gently add whites, or rather, cut them in, barely enough to get it slightly mixed. Season to suit taste, pour into a hot, buttered skillet; let it cook a few minutes, turn half over, cook a little longer and take to table hot. Or if your oven is hot, cook it in the oven. The secret of having a good omelet is putting it together and cooking. Never use milk instead of water in this recipe.

AUNT JANE.

Our Household.

LAND POOR.

I've had another offer, wife—a twenty acres more,
Of high and dry prairie land, as level as a floor.
I thought I'd wait and see you first, as lawyer Brady said,
To tell how things will turn out best, a woman is ahead.
And when this lot is paid for, and we have got the deed,
I'll say that I am satisfied—it's all the land we need;
And next we'll see about the yard, and fix the house up some,
And manage in the course of time to have a better home.

WIFE.

There is no use of talking, Charles—you buy that twenty more,
And we'll go scripping all our lives, and always be land poor.
For thirty years we've tugged and slaved, denying half our needs.
While all we have to show for it is tax receipts and deeds!
I'd sell the land if it were mine, and have a better home,
With broad, light rooms to front the street, and take life as it comes.
If we could live as others live, and have what others do,
We'd live enough sight pleasanter, and have a plenty, too.

While others have amusements and luxury and hooks,
Just think how stingy we have lived, and how this old place looks.
That other farm you bought of Wells, that took so many years
Of clearing up and fencing in, has cost me many tears.

Yes, Charles, I've thought of it a hundred times or more,
And wondered if it really paid to always be land poor,
That had we built a cozy house, took pleasure as it came,
Our children, once so dear to us, had never left our home.

I grieve to think of wasted weeks and years and months and days,
While for it all we never yet have had one word of praise.
Men call us rich, but we are poor—would we not freely give
The land and all its fixtures for a better way to live?

Don't think I'm blaming you, Charles—you're not a whit to blame,
I've pitied you these many years to see you tired and lame.
It's just the way we started out, our plans too far ahead.
We've worn the cream of life away, to leave too much when dead.

'Tis putting off enjoyment long after we enjoy—
And after all too much of wealth seems useless as a toy—
Although we've learned, alas, too late! what all must learn at last,
Our brightest earthly happiness is hurried in the past.

That life is short and full of care, the end is always nigh,
We seldom half begin to live before we're doomed to die.
Were I to start my life again, I'd mark each separate day,
And never let a single one pass unenjoyed away.

If there were things to envy, I'd have them now and then,
And have a home that was a home, and not a cage or pen.
I'd sell some land if it were mine, and fit up well the rest.
I've always thought, and think so yet, small farms well worked are best.

—J. W. Donovan.

PRETTY GIFTS.

After the holidays every home has some pretty new trifles, adorning mantel or wall. As it is always pleasant to know how to produce something useful, beautiful and uncommon, we gladly give illustrations of a few of the gifts which kind and tasteful friends sent to mark the Christmas-time.

First, a dainty pincushion. It is composed of two shells. Did you ever sit by a spring in summer and watch the mussels creep out of their shells? The shells open gradually, and the jelly-like creature within lays its flabby side out. Touch it with a stick, and lo! Then you see a representation of "going into his shell," and if you ever use that figure of speech concerning a human, you will feel the force of it. Well, this pincushion looks like an artificial mussel of lemon-colored velvet which has crept out between its two pretty shells. There is a pretty bow of baby ribbon of

corresponding color tied to keep the shells together where they hinge.

Next comes a charming basket which is suitable to place on one's dresser to hold rings and other precious little objects. It is composed of eight shells like the two which make the pincushion. These shells are pierced with small holes at the bottom and at each side. An oval piece of pasteboard is cut of a size large enough to fit the eight shells. It is neatly covered with lemon-yellow China silk. Through the holes at the base of the shells several stitches of silk thread fasten the shells in place. The sides of the shells are tied together with little bows of the baby ribbon. A puff of the silk is inside the shells. A handle, wound around with the ribbon and decorated with a bow of the same, completes this graceful article.

Finally, a wall-pocket for unanswered letters. First, make a shallow box open at the top, with a wall dimension about six by ten inches. Cover it in front with bolting-cloth over orange-colored surah. Make a full puff of the surah at the sides and bottom of the pocket. A white silk cord is around the front panel covered with bolting-cloth, and there is also a little bow of orange baby ribbon at each corner. A spray of grasses and clovers is painted in natural colors on the bolting-cloth, and the words, "Unanswered Letters," are put on in gilt. Baby ribbons are used to suspend the pocket from the wall. The back of the pocket is neatly covered with yellow Japanese paper. Look at it where you will, everything is dainty and complete. With this brief description and the illustration,



PRETTY GIFTS.

you will have no trouble in copying either of these pretty gifts, and lucky will be the person to whom they are given.

KATE KAUFFMAN.

MUSHROOMS.

There are many persons who esteem mushrooms as a great delicacy, but are deterred from using them by fear of the poisonous properties of many of the fungus plants closely resembling them. The following method is said to be an infallible test: Sprinkle a little salt on the inner side or spongy part; if true mushrooms, they will turn black, if poisonous fungi, they will in a short time turn yellow.

MUSHROOM SAUCE FOR BOILED TURKEY.—Carefully remove the skins from one half pint of button mushrooms, and cut off the stems. Chop them and put them in a saucepan with a tablespoonful of butter, a little salt, a quarter of a teaspoonful of sugar and one half pint of white sauce. Simmer for five minutes, rub through a coarse strainer, and serve very hot.

STEWED MUSHROOMS.—Have ready a bowl of cold water, and squeeze into it the juice of a lemon. Cut off the mushroom stalks and peel the heads, throwing them into the bowl as they are ready. Take them out of the water carefully, so as to avoid any sediment that may have fallen to the bottom, and put them into a stewpan with a lump of butter, salt and pepper to taste, and a teaspoonful of lemon juice. Cover the pan and let them stew gently for half an hour; then thicken the liquor with a little flour, add a few spoonfuls of cream, a little grated nutmeg and just a hint of cayenne pepper. Let all stew gently until the mushrooms are quite tender.

BREAKFAST MUSHROOMS.—Clean a dozen or so medium-sized mushrooms, and cut off the stalks. Place two or three spoonfuls of beef dripping and a little beef gravy in a frying-pan; to this add a very small quantity of extract of meat and place the

pan on a gentle fire. As the dripping melts, place the mushrooms in it, adding salt and pepper to taste. Cook for a few minutes until tender, and serve in the gravy.

ANOTHER WAY FOR BREAKFAST MUSHROOMS.—Divide some freshly-made toast on a dish, and place half-grown mushrooms, peeled and stemmed, upon it; add pepper and salt to taste, and a little piece of butter on each. Pour on each mushroom a teaspoonful of milk or cream, and add just one clove for the whole dish. Put an inverted bowl over the whole, and bake for twenty minutes. Serve immediately, being careful not to remove the cover until the dish is placed on the table, so as to preserve the heat and aroma.

MUSHROOM KIDNEYS.—Broil three kidneys, or more if desired; broil twice the number of large mushroom heads, season well with salt and pepper. Put a little fresh butter inside each mushroom, then place a kidney between every two mushrooms, and serve very hot on thin slices of toast. If the kidneys are too large, slice and cut to fit before broiling.

BAKED MUSHROOMS.—Peel half-grown mushrooms and lay them underside upward on a plate. Have only one layer, put a small piece of butter on each mushroom, and salt and pepper to taste. Add two tablespoonfuls of catchup and one of water, press around the rim of the plate a strip of paste. Firmly press a plate of the same size over this and down in the paste. Put in a quick oven and bake twenty-five minutes. Leave the top plate on until the mushrooms are served. These are simply delicious.

ANOTHER WAY TO BAKE MUSHROOMS.—Place the mushrooms in a tin baking-dish, with butter, pepper and salt. Bake gently, pile high on a dish and serve with hot cream sauce.

BROILED MUSHROOMS.—Large mushrooms are required for this. Broil over a clear fire and turn once. Put them in a very hot dish, with a piece of butter and salt and pepper on each mushroom. Serve very hot. They may be broiled in an ordinary frying-pan almost as nicely, not using any fat or butter to grease the pan, of course, and taking care to prevent burning.

PICKLED MUSHROOMS.—Choose small button mushrooms, carefully rub off the skins and cut off the stalks; throw the heads into milk and water, drain, and dry on a cloth and put into a jar or jars. Take enough good vinegar to cover the mushrooms, and boil it with salt, bruised ginger, mace, a little nutmeg, and cayenne to taste. When boiling hot, pour it over the mushrooms; let it stand till cold, then carefully cover the jars to keep out air and light.

MUSHROOMS WITH BEEF.—Peel and wash the mushrooms and cut in slices. Cut some cold roast beef in thin slices; sprinkle salt, pepper and little pieces of butter on both mushrooms and beef. Butter a pie-dish; put in a layer of cold beef, then a layer of mushrooms, and sprinkle over the latter a little of a finely-chopped onion; then lay in another layer of beef and one of mushrooms, sprinkling on the rest of the onion and a little finely-rubbed thyme over this. Add a tablespoonful of vinegar and half a pint of stock broth; then cover the top with mashed potatoes or grated bread crumbs, with little pieces of butter sprinkled over. Bake for one hour in a moderate oven. When done, serve immediately.

MUSHROOMS AU GRATIN.—Cut the stalks and peel the mushrooms. Chop lean, boiled ham and a little parsley very fine. Put them in a stewpan with a little melted butter and a pinch of flour, some seasoning and a *soupeon* of finely-rubbed thyme; place on the fire to get quite hot, then stir in as many eggs as required to make it a thick custard. Four will do for nearly a cupful of ham. Fill the mushrooms with this mixture, place them in a shallow stewpan with some butter and gravy, cover with bread crumbs and place in a hot oven for fifteen minutes. Dish them up in a heap on a hot dish and pour boiling gravy around them.

Mushrooms may also be stewed in milk, exactly as we stew oysters, but many prefer to cook them in water (very little is required), as in this way the pure mushroom flavor is preserved. One of the easiest methods of cooking them is to place them, after peeling and cutting off the stalks, in a shallow dish, cover with rich milk, and season to taste with pepper, salt, a little nutmeg and butter. They are delicious in this way, either cooked on top of the stove or baked for an hour in a moderate oven.

I have been told that they also make a good pie, but cannot speak from experience.

Mushrooms may be enjoyed all winter by growing them in a box in the cellar. Have a box or bed the size required and about ten inches deep, fill it eight inches deep with very rich, highly fertilized loam, and press the ground down firmly. In this plant the broken pieces of spawn six inches apart, covering the whole with two inches of light soil. Protect from cold and rain. Water occasionally with tepid water. The mushrooms will appear in about six weeks.—*Good Housekeeping.*

HOME ENTERTAINMENT.

"A little nonsense now and then,
Is relished by the best of men."

Every hostess likes to feel that her guests are being well entertained, and one of the newest diversions is "The Potato Walk." Each guest is to walk twice around the room, carrying the largest irregular-shaped potato it is possible to find, on a teaspoon. A "happy thought" prize to the most graceful and successful walker is a paper-mache potato, filled with bon-bons, while the "booby" prize is the smallest potato obtainable. The *Home-Maker* gives these suggestions for entertaining:

"Weaving a Romance" is an original diversion which might be cultivated to advantage. It is a charming fire-light or hearth-glow pastime, calling forth all latent imaginative capabilities. Some one proceeds with a story, original, of course, and introduces a character made personal, to represent any one present. The original of the character portrayed then takes up the thread of the tale and continues, bringing in another character, the representative of which is readily recognized. This novel writing is kept up until all the guests have been woven into its composition.

Frequently, just before the time of serving refreshments, there is an awkward lull in the conversation. A capital idea to avoid this trying silence is to compose an original poem. Each one writes a line, turns down the paper, and hands it to his neighbor, telling him only the last word. The growing poem makes the rounds in this manner, the last word of each line added rhyming with that of the preceding. The ridiculous, disjointed whole may be imagined. It is invariably laughable enough to lubricate all tongues.

"Making a Will" is also new. The one about to make a will draws, one at a time, the slips bearing the name of the guests. The funny feature of this little game is to find out to whom the hand and heart are bequeathed. Obviously, a lady draws from a hat containing the names of the gentlemen, and a gentleman draws *vice versa*.

S. AMELIA R.

A PENNY PARTY.

A merry party of young people gathered together makes home cheery. They are always on the lookout for something novel in the way of entertaining.

There has been such a quantity of odd parties, some chosen for their instructiveness, others for amusement and pleasure, and we now present to our readers another new one, very pleasant for small gatherings.

Provide as many pennies as there are guests. Also have two sets of cards, either printed or written. There must be twice as many cards as guests, two for each one. On the first card, print or write:

Questions—Find on head of penny.

1. Union of youth and old age.
2. A flower.
3. A fruit.
4. A part of a hill.
5. An animal.

On the second card:

Questions—Find on tail of penny.

1. A messenger.
2. A weapon of defense.
3. A weapon of war.
4. A body of water.
5. A beverage.
6. A gallant.

Fasten the two cards together with ribbon. Each guest was handed a penny, a pencil and a card. They were to answer the questions without any assistance. Prizes were given to those having the most correct answers in the specified length of time. The answers to card No. 1 are:

1. 18 and 90.
 2. Two lips (tulips).
 3. Date.
 4. Brow.
 5. Hair (hare).
- To card No. 2:
1. One cent (sent).
 2. Shield.
 3. Arrow.
 4. C (sea).
 5. T (tea).
 6. Bow (beau).

AMELIA D'ORSEY.

SOME SUGGESTIONS FOR FANCY WORK.

This butterfly idea can be carried to any extent, on sofa-cushions, table-squares, scarfs or doilies. Sets for the table are done in white or colors, all unmatching; but if flowers in natural shades are used, the butterfly should be in colors as nearly like nature as possible. Three or four on a table-square would be beautiful in effect.

Lace or linen in cut-work has found much favor for table use, as it can be underlaid with silk of different colors to match the china or decorations.

Large flowers are much used for these scarfs and squares, buttonholed on the edges and then cut out, the edges of the flowers forming the edge of the article. Small flowers are used in the same manner for mats, and for doilies to be used with finger-bowls and goblets.

Butcher's linen makes a beautiful mat or round tray-cover. Cut the linen round, and have four curved portions at equal distances, stamped for cut-work, and plain embroidery at equal distances on the circumference and in the intervening spaces; a large flower is embroidered in buttonhole and cut out on the outer edge. The spaces in crescent shape are buttonholed on the edges with a long scallop, and fringed.

This same linen makes handsome table-covers and sofa-pillows, embroidered in white silk, as they can be laundered without spoiling their beauty.

There are no new shapes for sofa-pillows or floor-cushions. From twenty-four to twenty-seven inches are the best sizes for a couch, and a yard square is none too large for the floor. They are finished in a variety of ways, but if made of soft silk a double ruffle of the same is the prettiest finish.

Mail-cloth and a material closely resembling it, but having large squares, still hold a foremost place among the heavier materials. Both can be darned in a great variety of stitches.

Folding work-baskets made of cardboard and covered with silk or cretonne, tied at the corners with small bows, will be found convenient in traveling, as they can be untied and laid flat in a trunk. They are made more useful by the addition of one or two pockets, pin-cushion and needle-book.

Long work-bags of crape or silk may be finished on the ends with lace or fringe. A knot is tied in the center of the bag, or nearer one end if preferred, and the shorter end finished with a tassel. These baskets and bags would be lovely luncheon favors.

Oblong boxes of cardboard, covered with a puff of silk all around, and having the top plain, on which initials or monograms may be embroidered, form convenient receptacles for curling-irons, with small alcohol lamps, and paper for testing the iron. The paper should be pinked on the edges and slipped through a band of ribbon on the inner side of the cover.

A pretty way of finishing a tea-cozy is to cut the inside the shape desired, only two or three inches smaller than the size needed. Line these pieces with crinoline. Tuft the silk for the inside, or lining, covering it thickly with wadding—particularly over the seam. Put a full puff of silk over this, and lace the two outside pieces together over it, or tie with ribbon bows. This is an improvement on the old way of making, as it is always difficult to avoid wrinkles at the top.

A cozy corner at one end of a room is most enticing. If the ceiling is high, it can be approached by one or two low steps, which will show a handsome rug to advantage. A frame of wood painted white, and touched in places with gilt, having oddly-shaped shelves and brackets for bric-a-brac, will add much to its beauty. The hangings should be of soft silk, but the couch may be upholstered in plush to match, or covered with a rug. The cushions should be large and soft, and in profusion. Individual tastes may be exclusively followed in arranging these corners.

For a polished table for library or smoking-room, the skin of a small kid, left in the rough shape—that is, the edges not trimmed—is among the odd things. A monogram, painted in gold or colors, is all the decoration necessary.

Fancy chairs, sofas, ottomans, foot-stools cushions and table-covers are exquisite if made of heavy satin, with appliques of Russian lace. This work must be done in a frame, and requires taste and skill in arrangement and execution. The lace must first be sewed down with white cotton, then a fine cord of real gold sewed all around the heaviest parts of the design. The lace may be arranged in a pattern around fine embroidery or Gobelin tapestry. This tapestry work would be a delightful summer pastime, as it can be purchased with designs traced in colors, needing only to be covered with the stitch, which is very simple. The work can be cut out and applied, or the background of canvas may be covered with a filling of silk or wool.

Borderings and scraps of old India shawls may be arranged for curtain bands, mantle decorations, cushions and other articles. A pretty way to preserve an heirloom.

These few hints may prove suggestive to many for summer work.—*Domestic Monthly.*

A VALUABLE EXPERIENCE.

Waters—"What did you occupy yourself with during your stay in Boomville?"
Deland—"I took a course in dentistry."
Waters (surprised)—"What's that?"
Deland—"Yes; I had my eye-teeth cut."



THE HAMILTON MIRACLE.

THE CASE INVESTIGATED BY A GLOBE REPORTER—THE FACTS FULLY VERIFIED—ONE OF THE MOST REMARKABLE CASES ON RECORD.

A MAN PRONOUNCED BY EMINENT PHYSICIANS PERMANENTLY DISABLED FULLY RECOVERS—FAC-SIMILE OF THE CHECK FOR \$1,000 PAID BY ROYAL TEMPLARS OF TEMPERANCE FOR TOTAL DISABILITY—HUNDREDS OF VISITORS.

TORONTO DAILY GLOBE, July 25.—This is an age of doubt; especially in regard to cures by patent medicines, and not without reason, for too often have the sick and their near and dear loved ones been deceived by highly recommended nostrums that were swallowed to be of less avail than as much water. The old, old fable of the boy and the wolf applies also too frequently to many of the specific concoctions for curing the ills that flesh is heir to; and when a real cure is effected by a genuine remedy those who might be benefited fight shy of it, saying, "it was 'cure, cure,' so often before that I won't try it." When such a state of affairs exists it is advisable that assurance should be made doubly sure.

A few weeks ago a marvelous and almost miraculous cure was made known to Canadians through the medium of the Hamilton newspapers. It was stated that Mr. John Marshall, a well-known resident of Hamilton, by the aid of Dr. Williams' Pink Pills for Pale People, had been snatched from the very jaws of death, placed upon his feet and enabled to mingle with his fellow citizens with more than renewed health and strength and even brighter spirits than he had experienced for years before. This remarkable statement naturally excited the wonder of almost a continent. Some believed, most people doubted, although the facts were placed so clearly as to ward off the slightest suspicion of fraud. To investigate the very extraordinary cure and place before the people of Canada and the United States verification or otherwise of it was the special mission of a *Globe* reporter a few days ago.

A close inquiry into the circumstances first showed that Mr. John Marshall, whose residence is 25 Little William street, in the north-east portion of the city, while employed as foreman for the Canadian Oil Company, five years ago, fell upon the edge of an oil vat and hurt his back. Thinking little of the affair, Mr. Marshall continued to work on, but after a few months he became ill, gradually got worse, and in August, four years ago, became stricken with the dread disease, locomotor ataxy—a disease attacking the nerves and rendering that portion of the system attacked perfectly helpless, proclaimed by the physicians to be incurable—which left him from the waist downwards without feeling and utterly unable to move his lower limbs. All he was able to do was to raise himself by the aid of sticks and crutches and drag himself around the house and occasionally to the corner of the street on fine days. His legs were without feeling pins; and even knives were stuck into them without the sick man experiencing any inconvenience. He could take a walking stick and beat his legs until the blows resounded through the house and yet he felt nothing. During all these years of torture Mr. Marshall consulted every doctor of ability in the city; tried every form of treatment and took almost every kind of patent medicine, but without receiving one tittle of relief. The agony was frequently so intense that he was obliged to take morphia pills in order to receive a reasonable amount of sleep.

As the months and years passed by, although the doctors continued to treat him in various ways, they plainly told the suffering man that he could not get better, the disease was set down in the works of specialists as incurable. The doomed man was a member of the United Empire Council, No. 190, Royal Templars of Temperance, and under the discouraging circumstances he thought it advisable to apply for the payment of the total disability claim of \$1,000 allowed by the order on its insurance policy. Application was accordingly made, but before the claim was granted the patient had to offer conclusive proof of his total disability to the chief examiner, and Mr. Marshall was sent to Toronto for a special electrical treatment. It proved no more successful than the others that had preceded it, and a number of city doctors and the chief medical exam-

iner of the order signed the medical certificate of total disability and Mr. Marshall received from the Dominion Councilor of the Royal Templars a check for \$1,000 last November. One day last February came Mr. Marshall's salvation although he did not accept it at first. A small pamphlet telling of Dr. Williams' Pink Pills and the diseases they cured, was thrown into the house, but it was placed aside and no notice was taken of it for weeks. One day the sick man reread the circular and concluded to try Dr. Williams' Pink Pills, although Mrs. Marshall tried hard to dissuade him, saying they would be as ineffectual as all the others; but on April 14—memorable day to him—Mr. Marshall began to take the pills, one after each meal for a start. In a few days a change was noticed, and as he continued to take the pills he gradually improved, and in a little over a month he was able to take the train for Toronto and visit an astonished brother-in-law. Now he can walk four or five miles with any of his friends.

The *Globe* representative paid a visit to the house of the man thus rescued from a living death. When the reporter's mission was explained, Mr. Marshall's face lighted up with a smile, which caused a responsive one to rise upon the features of his wife, and he expressed his perfect willingness to tell all that was asked of him.

"Why, I feel a better man now than I did ten years ago," said he, cheerfully. "It's four years next August since I did a day's work, but I guess I can soon make a start again. About my illness? It was all caused through falling and hurting my back. I kept getting worse until I couldn't get off a chair without a stick or crutches. The lower part of my body and legs were useless. I tried every doctor and every patent medicine, spending hundreds of dollars. Everything that was likely to help me I got, but I might as well have thrown it in the bay. I suppose my wife has shown you the apparatus I used at one time or another. A dozen city doctors gave me up. I got enough electric shocks for half a dozen men, but they did me no good. I lost control of my bowels and water and couldn't sleep without morphia. During the day my legs were cold and I had to sit by the stove wrapped in a blanket, suffering intense agony from nervous pains in the legs, neck and head. Yes, I received from the Royal Templars a \$1,000 check, being declared totally unable to follow my employment. One day in April I took a notion to try Dr. Williams' Pink Pills, carefully following the directions accompanying each box. I recovered my appetite and regained control of my bowels and water, and I went on getting better and stronger, and now you see me stronger and more healthy than I was for years before I was taken ill. I tell you I am feeling first-class," and Mr. Marshall slapped his legs vigorously and gave the lower part of his back a good thumping, afterwards going up and down the room at a lively gait.

"I weigh 160 pounds to-day," he continued, "and I've gained 30 pounds since I first took Dr. Williams' Pink Pills. I haven't such a thing as a pain or ache about me, and another thing, I can walk as easily in the dark as in the light."

Mr. Marshall offered to make an affidavit to the truth of the above story, but the reporter considered that wholly unnecessary. He carried conviction to the inquirer's mind by every word and action, and there was no gainsaying the fact that the cure was one of the most marvelous in the nineteenth century. All the neighbors bore testimony to the genuineness of the cure. None of them ever expected to see Mr. Marshall on his feet again and regarded his restoration to health as nothing short of marvelous.

The headquarters of the Royal Templars of Temperance for Canada are in Hamilton. At the publishing house of the order Mr. W. W. Buchanan, general manager and one of the most prominent temperance advocates of the Dominion, was found. In response to the reporter's question, he said: "Oh, yes, I am well acquainted with Mr. John Marshall. He has been a member of one of the councils of this city for about seven years. He is a well-known citizen and a reliable temperance man. About four years ago he was first taken seriously ill and his case was brought before the order. The provisions under which the total disability claim is paid in our organization are very strict. The weekly sick benefit is payable to any per-

son under the doctor's care, who is unable to follow their usual avocation, but the total disability is a comparatively large sum, only paid a member who is disabled for life, and declared by medical men to be entirely past all hope of recovery. In Mr. Marshall's case there was some difficulty, it is true; he was examined upon a number of occasions, covering a period of upward of two years. The medical men who examined him all agreed that there was little hope of recovery, but they would not give the definite declaration that our law demands—that the claimant was permanently and totally disabled—until last November. When this declaration by two regular physicians was made and our Dominion Medical referee, we paid Mr. Marshall the total disability benefit of one thousand dollars. He was paid by a check on the Bank of Montreal. There is no doubt whatever about the remarkable character of Mr. Marshall's cure. A large number of our members in this city were intimately acquainted with Mr. Marshall and called upon him frequently. All were unanimous in the belief that he was past all hope of recovery. His cure is looked upon as next to a miracle. I have conversed with him a number of times about it, and he gives the whole credit to Dr. Williams' Pink Pills and the application of cold water which is recommended as a subsidiary treatment by the proprietors of the medicine. He drops into my office every day or two and is apparently enjoying good health now."

The general offices of the order are in the old Bank of Upper Canada building, just opposite the publishing house. Mr. J. H. Land, the Dominion Secretary, was easily found, and in response to the questions asked simply corroborated all that the general manager had said. Mr. Land is a neighbor of Mr. Marshall, living within a block of him in the northeastern part of the city. He was well acquainted with him for years before he was taken sick, and pronounced his recovery as one of the most remarkable things in all his experience.

"I have not much faith in patent nostrums," said Mr. Land, "but Mr. Marshall's case proves beyond a doubt that Dr. Williams' Pink Pills are a wonderful medicine. He seems to have exhausted all other means and methods of treatment during his long illness and all without any benefit, but his recovery was rapid and wonderful immediately after he commenced using Dr. Williams' Pink Pills."

Inquiries among the city druggists disclosed the fact that an extraordinary demand had arisen for Dr. Williams' Pink Pills, and that the claims made for them by the proprietors are borne out by numerous cures.

John A. Barr, a well-known and popular dispenser of drugs here, told the reporter that he knew of no patent medicine that had such a demand upon it, or one that had done all that was promised for it. He told of several cases of great relief and cure that had come under his notice. Mr. Wm. Webster, after suffering from ataxy for years, from the first had found certain relief from taking the pills, and he is now a new man. Mr. George Lees, after years of illness of a similar nature, had taken the pills, and was able to walk out greatly improved in health. Another case Mr. Barr vouched for was a city patient, who had been cured by the pills of the effects of la grippe, after having been given up by the doctors. Many others had spoken highly of the Pink Pills as a fine remedy for nervous and blood disorders. Other druggists told the same story.

A further investigation revealed the fact that Dr. Williams' Pink Pills are not a patent medicine in the sense in which that term is usually understood, but are a scientific preparation successfully used in general practice for many years before being offered to the public generally. They contain in a condensed form all the elements necessary to give new life and richness to the blood and restore shattered nerves. They are an unfailing specific for such diseases as locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, rheumatism, nervous headache, the after effects of la grippe, palpitation of the heart, pale and sallow complexions, that tired feeling resulting from nervous prostration; all diseases depending upon vitiated humors in the blood, such as scrofula, chronic erysipelas, etc. They are also a specific for troubles peculiar to females, such as suppressions, irregularities, and all forms of weakness. They build up the blood and restore the glow of health to pale or sallow cheeks. In the case of men they effect a radical cure in all cases arising from mental worry, overwork or excesses of whatever nature.

On further inquiry the writer found that these pills are manufactured by the Dr. Williams' Medicine Company, Schenectady, N. Y., and Brockville, Ontario, and are sold in boxes (never in loose form by the dozen or hundred) at 50 cents a box, or six boxes for \$2.50, and may be had of all druggists or direct by mail from Dr. Williams' Medicine Company, from either address. The price at which these pills are sold makes a course of treatment comparatively inexpensive as compared with other remedies or medical treatment.

Our Sunday Afternoon.

"NOW I LAY ME DOWN TO SLEEP."

The fire upon the hearth is low,
And there is stillness everywhere;
Like troubled spirits, here and there
The firelight shadows fluttering go;
And, as the shadows 'round me creep,
A childish treble breaks the gloom.
And softly from the further room
Comes, "Now I lay me down to sleep."

And, somehow, with that little prayer,
And that sweet treble in my ears,
My thought goes back to distant years,
And lingers with a dear one there.
And, as I hear the child's amen,
My mother's faith comes back to me;
Crouched at her side I seem to be,
And mother holds my hands again.

Oh, for an hour in that dear place!
Oh, for the peace of that dear time!
Oh, for that childish trust sublime!
Oh, for a glimpse of mother's face!
Yet, as the shadows 'round me creep,
I do not seem to be alone—
Sweet magic of that treble tone—
And "Now I lay me down to sleep."

—Eugene Field, in Chicago News.

One day at a time! That's all it can be;
No faster than that is the hardest fate;
And days have their limits, however we
Begin them too early and stretch them too late.

One day at a time! 'Tis the whole of life!
All sorrow, all joy are measured therein;
The bound of our purpose, our noblest strife,
The one only countersign, sure to win!

—Helen Hunt Jackson.

CALLING A HALT.

I CANNOT imagine why I am so tired all the time. It seems to me that I do very little," said a woman, dragging herself to a chair and sitting down wearily.

"How many times do you go up and down stairs?" inquired a friend.

The house was in a city, high and narrow, with four long stairways, three of which intervened between the kitchen and the mother's "own room."

"Why, not very often; I don't know. I have a good many errands about the house, here and there, and my impulse is usually to wait on myself. I suppose I spend a good deal of my strength on the stairs, now that I think of it."

"And pardon the suggestion, but you are always looking out for others so much and so generously, that others ought to look out for you. Have you ever thought how often you are interrupted in the progress of a day? The ordering of a house is the first thing, but some trifle is forgotten—pepper or salt, flavor or seasoning, and you are consulted about that. Then your big boy comes to you with his necktie and his cuffs, and your four-year-old has pinched his finger and needs comforting; your daughters have no end of affairs in which you must be counselor, and your husband leaves the weight of his perplexities and the irritability that grows out of his overwork on your ever-ready strength. Dear, it is not wonderful that you are tired. The wonder is that you rest so soon, after a nap or a little time by yourself, coming out to the family made over again."

"But what can I do? All that you mention forms a part of the every-day duty of a woman like myself, whose main work in the world is to keep her home happy and comfortable."

"Once in awhile you might call a halt. You should pack a little bag and run away for a three days' visit, leaving the house-keeping to the young shoulder, which will find it only a slight burden. It is an imperative duty, occasionally, to take care of one's capital, if one be a wife and a mother."

In the interest of the rest, for the sake of the days that are coming, a matron must be provident of her own health, not suffering herself to drift into nervous prostration or wearisome invalidism.

There are graves not a few over which the inscription might be written: "Here lies Mary —, the beloved wife of Theodore —, tired to death." And in most cases the blame is not Theodore's, but Mary's own. She should have called a halt in time.—Harper's Bazar.

WHERE AM I?

We have read of the tradesman who, as he balanced his accounts at the close of the year, asked himself the question, "Where am I?" People deem such things important; think it necessary to keep account of the income and liabilities in money matters. Honest people, at least, try to keep their business on a safe basis.

But it is really more important to see to the condition of the heart; to learn whether He whose claims are all just has those upon us which we are not able to meet: whether or no as the calls for the talents intrusted to us with the expectation of wise use and increase, we shall return the same with usury, or shall only confess indolence and carelessness, and add insolence thereto, perhaps accusing the Maker himself of unjust requirement of us. All we have of good came from him, and he specifies for what purpose it is given, and assures us plainly he will come to reckon with his servants.

When Adam heard God ask, "Where art thou?" he sought to remain hidden; but such an effort is useless. He will bring us and all our doings to light. Then how will it be? Has all been wrong until the present? It may be rectified. An early confession will secure pardon. Repentance and faith will set things right if applied within the given time.

A life of sin is like a madly-flowing river. An awful judgment with its eternal death awaits all who turn not their course. An awful current of sin is bearing multitudes onward to fearful doom. On the bank of the Niagara river, where the rapids begin to swell and swirl most desperately, preparatory to their final plunge, is a sign-board which bears a most startling legend: "Past redemption point," it reads. To read it, even when one feels the firm soil beneath his feet, sends a shiver of horror through one's soul as he looks upon the turbulent waters and realizes the full significance of the sign. The one who gets into those boiling rapids, and passes that point, cannot retrace his way, cannot pull to shore, cannot be rescued by friends. He is not yet dead, but he might as well be. He must give up all hope of rescue; he can only float on, swiftly and more swiftly, until death ends his suspense and misery.

No sign-board marks the spot, but, sinner, it is somewhere on the road you are traveling. Each time you stifle conviction and resist the spirit may possibly be the last. God is under no especial obligation to warn, entreat and invite all your life. This call may be the last, and mercy's pleading for you from this time may cease. The death-line may be nearer than you think. Stop while the Savior is at hand to help. Venture no farther away from God, but hear the voice of God himself: "Turn ye, for why will ye die?"

HINTS FOR WORKERS.

One of the most charming things about those New Testament Christians is that they understood how to work without worrying. They simply did the duty that came to hand, and did not trouble themselves whether anybody noticed them or praised them, or whether any great result should come of their honest endeavors. Mary breaks her costly perfume on her Master's feet without the least idea that all the world should yet hear of the gracious deed of love. Dorcas plies her needle, and Tertius drives his pen as Paul's stenographer, and Phebe goes off to Rome with the Epistle to the Romans in her satchel, and none know or care that they will ever be heard of again.

The apostles were wonderfully calm men. They faced duty and endured obloquy, and committed all results to God. If Paul ever worried he never told us of it. He was the cool man on board the tempest-tossed corn-ship in the hurricane. His assurance to his fellow Christians was, "The peace of God, which passeth understanding, shall keep your thoughts in Christ Jesus." This is the deep, inward calm—like the tranquillity which reigns an hundred fathoms down in the Atlantic, while the billows are raging upon the surface.—Messiah's Herald.

SWEET TO KNOW.

In time of sorrow it is very sweet to know that God's love changes not. It is the same in the brightness and when the brightness fades into gloom. It is the same in joy and when the joy turns to grief. It is the same when blessings are given and when they are recalled. "The Lord gave and the Lord hath taken away"—the same Lord and the same love. It does not seem so to us. We believe that while he showers gifts and favors upon us he loves us; but sometimes, when the skies grow dark and he gives sorrow and pain, we feel that he does not love us as before. Yet it may be that there are even richer blessings in the things which give us grief than in the things which give us gladness. We know at least that the same wise, gentle, infinite love sends both.

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In rivalry to trace
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A rosebud for a brush,
It glowed with sunset's blush,
Ed on the evening sky,
Star used for the eye.

Ed. Each a curtaining cloud
And each exclaimed aloud:
"Three have drawn the same
The model!" Ah! her name?

Saw the pictures grow,
Falter, fade and go.
Model—off she lures
The face, my sweet, was yours.

—Good Form.

CHRISTOPHER COLUMBUS.

AT Columbus owed to his wife much of the success for which he world to-day unites to honor him, is a fact of which a writer in the *Chicago Tribune* reminds us. Says this chamber-forgotten woman: It seems singularly singular that in this women are being accorded prominence, that the memory of Christopher Columbus is personally entirely "out of it" instead I have been reading upon the, and find that Mrs. Columbus is more deserving of a share of Mr. Columbus' success than most of the unknown known men. Columbus was a Miss Palestrello, of Lisbon, had distinguished himself as a part of Miss Palestrello's ver was a great collection of arts, journals and important. From childhood she had displayed enthusiasm on the subject to a marked degree of the and adventuresome ideas and the line of geographical discovery. Lisbon was then headquarters of a fine education, and known as a brilliant woman, tantly urging her husband on which finally brought him to goal with which we are so tile a girl Miss Palestrello per of hazardous voyages with unfamiliar waters, and later geographical drawings, several were used with great profit when he had won her for his out upon his more important on the great deep. There is picture of this brave, talented t, but certainly it would seem most fitting thing that her lives some tribute upon the occasion.

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SECOND LITERARY CONTEST.

During the past few weeks the people of staid old England have been enjoying great fun. Rich and poor, men, women and children have had their wits sharpened by brushing up against other bright intellects in Missing Word Contests. There were 217,000 persons engaged in one of the recent contests, each of the successful contestants receiving about \$470.00. Above \$800.00 was received by each successful person in another contest. And in still another \$280.00 was received by each.

In our issue of February 1st, the first FARM AND FIRESIDE contest was opened, to close February 15th, the result of which will be announced in our issue of March 1st. We here present the

SECOND FARM AND FIRESIDE

Missing Word Contest

Below is printed a sentence from which the last word is missing. The object of those entering the contest is to correctly supply the missing word, and each contestant should send a word that will fill out the sentence and complete the meaning. The sentence is taken from the work of a well-known author.

THIS IS THE SENTENCE:

"The Declaration of Independence by the British Colonies in America was something more than the creation of a new . . ."

(The word is omitted here.)

This contest will close March 1, 1893, and the result will be announced in our issue of March 15th.

WHO MAY ENTER THE CONTEST?

Any subscriber to FARM AND FIRESIDE, or any one sending one year's subscription to FARM AND FIRESIDE, thus becoming a subscriber.

ENTRANCE FEE.

Each subscriber trying to supply the missing word must send 10 cents with the word. (Send either postal note, money order or stamps. Or a silver dime can be safely mailed if wrapped in a small piece of paper and carefully sealed in a strong envelope.)

ONLY ONE WORD

May be entered by each subscriber in this contest. A subscriber is not allowed to send two or more words with two or more dimes.

HOW TO SEND THE WORD.

Cut out the "Missing Word Coupon" below and plainly write the missing word and your name and address in the blank spaces. Do not write the whole sentence. Subscribers preferring not to cut their paper may write the word, together with their name and address, on a piece of paper or card about the size of the coupon, but nothing additional must be written on the same sheet. If written on the same sheet with a letter, the word will not be entered.

Always address

FARM AND FIRESIDE, Philadelphia, Pa., or Springfield, Ohio.

SECOND MISSING WORD COUPON.

Farm and Fireside:

As the missing word in the second contest, ending March 1, 1893, I send the following:

MISSING WORD

My name is

Post-office

County

THE MONEY TO BE DIVIDED

AMONG SUCCESSFUL CONTESTANTS.

The amount received from the entrance fees, after deducting one fifth for expenses, will be equally divided among those who correctly supply the missing word. The postage-stamps have to be disposed of at a loss, and it is estimated that one fifth of the receipts will be needed to make up this loss and attend to the correspondence, make remittances, etc., the publishers receiving no profits from the entrance fees.

THIS CONTEST WILL CLOSE MARCH 1st,

And words received after that date will not be entered. The result will be announced in our issue of March 15th, which will publish the word, the full number of contestants, and the number of successful contestants, with their names also if we have space.

HOW IT WILL WORK.

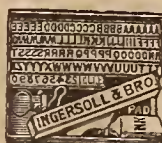
Should 25,000 subscribers enter the contest the receipts would amount to \$2,500.00, making \$2,000.00 to be divided among the successful ones.

The greater the number of contestants the larger the amount to be divided. If 50,000 persons enter, there will be \$4,000.00 to divide among the successful contestants.

The legal authorities of the post-office department have decided that there could be no objection to a contest of this character.

FREE

If you will send us within the next 30 days a photograph or a tintype of yourself, or any member of your family, living or dead, we will make you one of our enlarged life-like CRAYON PORTRAITS absolutely free of charge. This offer is made to introduce our artistic portraits in your vicinity. Put your name and address back of photo., and send same to Cody & Co., 755 DeKalb Avenue, Brooklyn, N. Y. References: Rev. T. DeWitt Talmadge, all newspaper publishers, Banks, and Express Companies of New York and Brooklyn. P. S.—We will forfeit \$100 to any one sending us photo, and not receiving crayon picture Free of charge.



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For 20 Cents, silver or stamps, to help pay postage, packing, etc., we will send by mail, postpaid, to anyone, SIX HANDSOME TEASPOONS and our catalogue of fast-selling, money-making Useful Household Articles. 800 a week easily made. Address, WESSON MFG. CO., 41 Eddy St., Providence, R. I.



THIS \$11 to \$17 FREE

SEWING MACHINE to examine in any home. Sent anywhere without one cent in advance. Warranted the best sewing machine ever made. Our terms, conditions and everything far more liberal than any other house ever offered. For full particulars, etc., cut this advertisement out and send to us today. Address Aivah Mfg. Co., Dept. B23, Chicago, Ill.

BEAUTIFUL QUEEN MAB'S

curious eccentricities are illustrated by fine original engravings in Dr. O. P. Brown's unique Shakespearian Almanac for 1893. Specimen copy mailed on receipt of address on post card. Address J. Gibson Brown, 47 Grand St., Jersey City, N. J.

Our Miscellany.

BACHELORHOOD MADE EASY.

Cooking classes for gentlemen! The final blow to that honorable and old-fashioned institution of matrimony! Modern developments are in league against wedlock. Patent buttons have been fashioned that preclude the necessity of a needle. Depots of repairs are established from which issue skilled hand-maidens to go into the bachelor's home and reduce the rents in hose and the fractures in linen at minimum cost.

The trained nurse has monopolized the most tender of wifely devotions. Indeed, the wife is summarily dismissed from the husband's sick-room if danger is imminent. And the trained nurse is a most engaging, low-voiced institution in picturesque cap and apron. Her hands are like velvet to the touch, but strong and wondrously deft. She knows how to coax and how to command, without irritation or fussiness. Obedience is delicious when in accord with her sovereign will. Her dress never rustles. She never eries over a poor fellow when he is too ghastly sick to endure it. She doesn't get her precious feelings injured when his head thumps so he is obliged to call on his Maker with undueunction and familiarity.

Apartment houses and clubs galore are luxuriously appointed for the bachelor's comfort. Gentle women and fresh young maidens sympathize with his ideals and ambitions, and vex him not with tales of the cook's delinquencies or bills for millinery. The chafing-dish has been evolved to give zest to his lonely estate.

And now the cooking class! Receptions, high teas and luncheons successfully given without a hostess. Beefsteaks always rare and to one's liking. Quail broiled to a turn and terrapin divinely seasoned. "All this and heaven, too," as the old Long Island deacon said when he saw Lyman Beecher's parlor, with its rag carpet and six ornately decorated wooden chairs.—N. Y. Sun.

Miss Flora A. Jones, South Bend, Ind., Box 8, pays \$18.00 a week to ladies for writing at home, by sending her a stamped envelope.

DESIGNS OF THE COLUMBIAN STAMPS.

The new series of Columbian postage-stamps are now on sale at the larger post-offices, and soon can be had at any office in the country. They will be issued this year only, and will go into immediate use. The portrait of Columbus is the same as that on the souvenir coins. The denominations, designs and colors of the Columbian stamps are as follows:

One-cent stamp: Columbus on shipboard, in sight of land; color, medium shade of blue.

Two-cent stamp: The landing of Columbus; color, maroon.

Three-cent stamp: The Santa Maria, the flag-ship of Columbus; color, medium shade of green.

Four-cent stamp: The fleet of Columbus, consisting of the Santa Maria, the Nina and the Pinta; color, light blue.

Five-cent stamp: Columbus appealing to Queen Isabella for aid; color, chocolate brown.

Six-cent stamp: Columbus entering Barcelona in triumph; color, royal purple.

Ten-cent stamp: Columbus presenting natives at the Spanish court; color, Vandyke brown.

Fifteen-cent stamp: Columbus reciting the story of his discovery; color, dark green.

Thirty-cent stamp: Columbus at La Rabida demonstrating the theory of his enterprise; color, sienna brown.

Fifty-cent stamp: The recall of Columbus by Isabella, after the rejection of his proposition; color, carbon blue.

One-dollar stamp: Isabella pledging her jewels in support of the project; color, rose-salmon.

Two-dollar stamp: Columbus in chains; color, toned mineral red.

Three-dollar stamp: Columbus describing his third voyage; color, light yellow-green.

Four-dollar stamp: Portraits, in three-quarter face, of Isabella and Columbus; color, carmine.

Five-dollar stamp: Portrait, in profile, of Columbus; color, black.

BY TRIFLING WITH A COLD, many a one allows himself to drift into a condition favorable to the development of some latent disease, which thereafter takes full possession of the system.—Better cure your cold at once with Dr. D. Jayne's Expectant, a good remedy for Throat ails and Lung affections.

GEOGRAPHY OF THE MOON.

Sir Robert Ball is reported to have said, in his lecture on the moon, that the geography of our satellite was better known even than that of the earth. There was no single spot on the moon the size of an ordinary parish in England that had not been fully photographed and observed. Of course, this remark can only relate to the side of the moon which is always turned toward us. Nearly one half of her surface has never been seen by mortal eye, and never will be unless the lunar globe should be tilted by collision with a comet or some such erratic body. Otherwise it is a fact that photography has done more for the earth's attendant than for the earth itself. It is analogous to the further fact that the only things which man can predict with certainty are not those that happen on the sphere he inhabits, but the movements of worlds immensely distant.—London Telegraph.

EARLY OHIO GRAPE ROSES

Ten days earlier than any other variety. NIAGARA and 100 other kinds. ORNAMENTAL SHRUBS, CLEMATIS, TREES, &c. Send for Catalogue. Mailed free. Mention this paper. Address C. S. CURTICE CO., Portland, N.Y.



SHEPARD IS IN IT FOR '93.

100,000 Fruit Plants Free, as Samples!

To prospective planters. Take your choice—5 Grapes (1 red, 1 white, 3 blue), or 1 Gooseberry, 1 Currant, 1 Grape, 1 Blackberry. First-class roots. Choice varieties, and my large Illustrated Catalogue, Price List and Planter's Guide. All I ask is 20c. for postage and packing. Catalogue without plants free. You want it. Will send Catalogue now. Will begin sending my plants 1st of March. All kinds of Nursery stock. Prices reasonable. Satisfaction guaranteed.

S. P. Shepard, Henrietta, Lorain Co., Ohio.



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COMPLETE. 4 alphabets rubber type, type holder, bottle of ink, ink pad and tweezers. Put up in neat box with directions for use. Satisfaction guaranteed. Worth 50c. Best Linen Marker, Card Printer, etc. Sets names in 1 minute, prints 500 cards an hour. Sent postpaid 15c. 2 for 25c. Cat. free. R. H. INGERSOLL & BRO. 65 Cortland St., N.Y. City.

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SEND for free Catalogue of Books of Amusements, Speakers, Dialogues, Calisthenics, Fortune Tellers, Dream Books, Debates, Letter Writers, Etiquette, etc. DICK & FITZGERALD, 23 Ann St., New York.

ANNIE ROONEY and 100 other new songs (no 2 all) 1 Pt. May 1 C.T. Home Cards, all the new directions, Art's worth, etc. All the new songs from BLAIR NOVELTY CO., LACEVILLE, OHIO.

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If you will hand to three friends the new booklets which we will mail you FREE, we will send you in advance a 50 cent cash certificate with FACTS which will help you, your wife, son, or daughter, to easily obtain part of the TWO HUNDRED AND FIFTY THOUSAND DOLLARS we are giving away this year in premiums. Write us at once for free sample and facts about our Wonderful Discovery, and for our references.

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Can this disease be cured? Most physicians say No—I say, Yes; all forms and the worst cases. After 30 years study and experiment I have found the remedy.—Epilepsy is cured by it; cured, not subdued by opiates—the old, treacherous, quack treatment. Do not despair. Forget past impositions on your purse, past outrages on your confidence, past failures. Look forward, not backward. My remedy is of to-day. Valuable work on the subject, and large bottle of the remedy—sent free for trial. Mention Post-Office and Express address. Prof. W. H. PEEKE, F. D., 4 Cedar St., New York.

HEALTH Restored by the pure air and superb climate of Florida. **WEALTH** In culture of Pineapples, Bananas, Oranges, Lemons and Pomeles. **COMBINATION** NOTHING SHORT OF **HAPPINESS** WHAT IS THE RESULT OF SUCH A COMBINATION? NOTHING SHORT OF **HAPPINESS** For Sample Copy of "PARADISE PINEAPPLE," FULL OF INFORMATION ABOUT THE LARGEST REGION OF SOUTH FLORIDA, write to W. E. PABOR, Manager, AVON PARK, FLORIDA.

SALESMEN to handle the Gem Scroll Saw. Useful in all kinds of business as well as a novelty. Saw wood or iron. We will send a FREE SAMPLE postpaid, with instructions on receipt of eleven cent stamps. CEM SCROLL SAW CO., Sandusky, O.

Agents Wanted to sell the Patent six-bladed Chopping Knife. Great seller; big profits; sample and terms mailed, 35c. J. C. Kenyon, Owego, N.Y.

WANTED—Women to take crochet work to do at home. City or country. Steady work. Particulars on application. L. WHITE & CO., 209 State St., Chicago, Ill.

SEND for our list of 19 Catalogs of Music and Musical Instruments. W. STORV, 26 Central St., Boston, Mass.

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LADIES SEND stamp for free description of "Infallible Safeguards" (no drugs, no deception.) Mme. LeNoir, Hampton, Va.

MENDING TISSUE

Repairs clothing better than needle and thread; Silk, Satin, Cotton and Woolen, Kid Gloves, Macintosh, Umbrellas, etc., all colors. Sample yard, 10c. Three yards, 25c. Twelve yards, 65c. Stamps taken. Agents wanted. Address STAYNER & CO., Providence, R. I.

LA BELLE SKIN SOAP
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500 DOCTORS Approve and Recommend **EUREKA PILLS** Formula of Thos. P. Shaw, A.M., M.D., Lowell, Tonic—LAXATIVE AND CATHARTIC. For Keen Appetite, Pure Blood, Clear Complexion, take these pills. They cure Constipation, Dyspepsia, Sick Headache. Try Them. Sent by mail, postpaid, 25 cents. Mention paper. EUREKA PILL CO., Lowell, Mass.

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OPEN FOLDING CLOTHES DRYER. Extended or Folded by simply turning a crank. Gives you 200 Feet of Line. Resolves to let clothes be hung from one spot. Top that holds line weighing but 18 lbs. can be lifted out and put away in clean place. Price within reach of all.

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Don't wait till spring; buy now & save money. Easy payments. All makes new & 2d hd Cata free. Rouse, Hazard & Co. 32 E St., Peoria, Ill.

HOW TO ROLL AN UMBREL

"No, not that way! I never knew in a hundred to do it right," said the umbrella store.

His remarks were directed at a customer who had grasped the handle with his right hand and was twisting the silk through his left hand.

"That will spoil that umbrella," the clerk continued. "You are twisting the ribs and braces instead of the handle as well as the silk. You may have noticed that your umbrella catches when you try to raise it because you didn't know how to twist the joints of the ribs and brace shape. Now let me show you how a should be rolled."

The clerk took the maltreated umbrella out of the folds of silk, and worked the ribs, and proceeded to demonstrate proper methods of umbrella rolling. The handle in his right hand, he twisted the joints of the ribs and brace shape. Now let me show you how a should be rolled."

The clerk took the maltreated umbrella out of the folds of silk, and worked the ribs, and proceeded to demonstrate proper methods of umbrella rolling. The handle in his right hand, he twisted the joints of the ribs and brace shape. Now let me show you how a should be rolled."

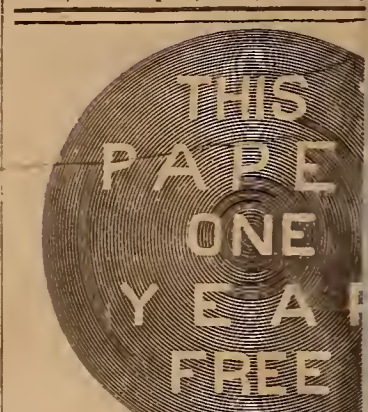
THE FASHIONABLE FLOW
this year is the Sweet Pea. The most beautiful variety of this flower is the "Person" just introduced by the house of Peter Henderson & Co., of and described in their advertisement of this issue of our paper.

WHAT SHE WOULD DO
"What would you do if your mother died?" she pathetically asked of her old daughter.

"I don't know," remarked the downcast eyes and a melancholy thence I should have to thank u

EVERY LADY

HER OWN PHYSICIAN.—A Lady who years suffered from Uterine trouble, Displacements, and Leucorrhoea finally cured which completely cured her. I take the remedies and thus cure herself, aid of a physician. The recipes with advice sent FREE to any sufferer sealed. Address Mrs. M. J. BRADLEY, Street, Philadelphia, Pa. (Name this p



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This offer must not be combined with any other. Both the new subscriber and your subscription must be paid.

Accept it now, while it is good, withdrawn. We have an office at 927 Chest Philadelphia, Pa., also at Spring Send your letters to the office nearest and address

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CUT
THIS OUT, send to us with 15¢ and we will send you a big family game of Authors (49 cards), C of Ventriloquism, Album of Trivia, Fortune Telling Secret, Parlor Games, Language of Flowers, etc. All for only 15 cents in stamps. Send today. AMERICAN NATION PUB. CO., Box 17

Farm Gleanings.

OHIO STATE HORTICULTURAL SOCIETY.

(Continued from last issue).

WHEN F. BIRD, of Ann Arbor, Michigan, was present and read a paper on grape culture. Everybody was not qualified by nature for grape growing. Some men could not see that grape-vines differed in growth and requirements. They had no special adaptability for growing grapes, and such should let the business alone. A vineyard should have natural advantages of location, in the way of climatic considerations being, if possible, protected by elevation or water from untimely frosts. The right kind of soil is important. The ideal soil was a sandy surface with a clay subsoil. Such a soil supplied the vine with an abundance of mineral food and at the same time made cultivation easy and the surface less affected by wet and drought. He fitted his soil with a plow as one would fit it for a farm crop, and then he opened double furrows in check-rows where the rows were to be. These were thoroughly loosened at the bottom with a subsoil plow, and the vines were set at the intersection by drawing soil into the furrows and planting thereon.

In the way of horticultural legislation accomplished, it was reported by N. H. Albaugh that a law against black-knot had been put upon the statute-book during the past winter. The law provides that a road supervisor or street commissioner must, when he receives notice in writing, go upon any land and destroy any trees of plum or cherry affected with black-knot, cutting or burning the same, or where practicable, the diseased branches of the same in November or December of each year. The expense of the work shall be reported in a bill presented to the county commissioners, and when audited by them shall be placed upon the duplicate and be collected with the taxes against the property upon which the diseased trees were growing, but the supervisor may not so proceed until after five days' notice has been given to the party owning the diseased trees.

Of prospective or desired legislation, the following resolution offered by L. B. Pierce was unanimously adopted by the society: *Resolved*, That this society believes that the extermination of the rose-bug would be of great value to the fruit and flower interests of the state, and would recommend that a special appropriation for this purpose be included in the appropriations for the experiment station for the coming year.

The committee who have the handling of the appropriation to make a horticultural exhibit next summer at Chicago reported that they had decided to have no private exhibits for premiums, but that all exhibits would be made for Ohio as a state, and that exhibits would be collected during the summer by agents of the committee and forwarded to the chief at Chicago, each fruit in its season. If fruit could not be gotten by donation it would be paid for. N. Ohmer, the veteran berry grower of Dayton, will represent the state as chief of horticulture at the Columbian exposition. The amount at the disposal of the committee is \$8,000, less \$450 allowed the state university for making a botanical exhibit.

The following officers were elected: President, G. W. Campbell; vice-president, O. W. Aldrich; secretary, W. W. Farnsworth; treasurer, N. Ohmer; ad. interim committee, E. H. Cushman, Cuyahoga; Wm. Miller, Ottawa; Cunningham, Hardin; Withoft, Montgomery; W. J. Green, Wayne; L. B. Pierce, Summit; Wm. Cox, Lawrence; Bilderback, Holmes; Waid, Fulton.

There was much more of interest said and done, but this synopsis of the more important must suffice. L. B. PIERCE.

The *Pacific Rural Express* gives the following as the ten commandments of the model dairyman:

1. Feed up, breed up and weed out your herd to a 300-pounds average standard.
2. Commence the dairy season in September.
3. Feed every day all the cows will consume without wasting of a well-balanced ration.
4. Give the cows full advantage of the best pasturage at your command.
5. Let the cows dry up at the beginning of the summer season when the seed does, that they may begin milking in good condition in September.
6. Never let a cow get poor.
7. Manage to keep your cows in milk for about ten months.
8. Raise calves in the barn on a well-balanced ration adapted to age, and have them ready to wean when the grass is at its best in the spring.
9. Feed your cows a heavy grain ration at the time of year when butter is highest, and you can get the best pay for your feed.
10. Save all your butter by improved appliances.

BUY "DIRECT FROM FACTORY," BEST MIXED PAINTS

At WHOLESALE PRICES, Delivered FREE. For Houses, Barns, Roofs, all colors, & SAVE Middlemen's profits. In use 54 years. Endorsed by Grange & Farmers' Alliance. Low prices will surprise you. Write for samples. O. W. INGERSOLL, 240 Plymouth St., Brooklyn, N. Y.

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GOLD DUST

WASHING POWDER.

When a woman KNOWS that GOLD DUST Washing Powder makes things clean in half the time, and keeps things clean for half the money, she is naturally annoyed at the "something else" game.

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N. K. FAIRBANK & CO., CHICAGO,
St. Louis, New York, Philadelphia, Boston, Montreal.

All cannot possess a

\$10,000 Souvenir

(This sum was paid for the first World's Fair Souvenir Coin minted.)

in the shape of a coin, but many can have fac-similes of this valuable work of art—only special coin ever issued by the U. S. Government—for \$1 each.

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World's Fair Souvenir Coins—

The Official Souvenir
of the Great Exposition—

5,000,000 of which were donated to the World's Columbian Exposition by the Government, are being rapidly taken by an enthusiastically patriotic people.

As there early promised to be a demand for these Souvenirs that would render them very valuable in the hands of speculators, the Exposition Authorities decided to place the price at

\$1.00 for Each Coin

and sell them direct to the people, thus realizing \$5,000,000, and using the additional money for the further development of the Fair.

Considering the fact that there were but 5,000,000 of these coins to be distributed among 35,000,000 people, in this country alone (to say nothing of the foreign demand,) and that many have already been taken, those wishing to purchase the mementoes of our Country's Discovery and of the grandest Exposition ever held, should secure as many as they desire at once.

For Sale Everywhere

Realizing that every patriotic American will want one or more of these coins, and in order to make it convenient for him to get them, we have made arrangements to have them sold throughout the country by all the leading Merchants and Banks. If not for sale in your town, send \$1.00 each for not less than five coins, by Post-office or Express Money-order, Registered Letter or Bank Draft, with instructions how to send them to you, all charges prepaid, to

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FARM FENCE Made of Best Galvanized STEEL WIRE



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Smiles.

POOR THING.

Breathes there the maid with soul so dead
Who never to herself hath said,
"I'll buy before I go to bed
A bonnet with a streamer?"
If such there breathe, go mark her well,
She never will be voted "swell,"
And nothing can redeem her.
Her father may a plumber be,
Her yearnings for "society"
May fiercer grow each minute,
In vain; for her no balls and teas,
But scornful smiles and looks that freeze,
Proclaim she is not "in it."

—Buffalo Express.

THE DEMAGOGUE'S PARADISE.

ANOTHER strange thing is that Kansas is always howling against demagoguery, and no state in the Union is a greater sufferer from it. I know a young Republican in western Kansas who wanted to go to the state senate. He lived in a purely agricultural district, but unluckily did not know the difference between a harvester and a hayrick. But this did not deter him.

"Look here," he said; "if Jerry Simpson can sneak into Congress with his impromptu grammar and damaged syntax, I guess I can make my way to the state senate. So here goes."

"He worked tirelessly for three weeks. He visited every Republican farmer in the district, and succeeded in making friends enough to secure him the nomination, beyond a doubt. The day of the convention came. Every aspirant was allowed five minutes to talk in his own behalf. Just before our friend arose, a red-headed aspirant for the same place, with parenthetical legs, got up and said:

"Gentlemen, I warn you. The man whom you are about to nominate is a fraud; who don't know enough to squirt powder at a potato-bug. I warn you."

"The blood burned in the young man's veins. He arose to defend himself. He did it by flattering the farmers and mentioning them by name. 'I have been all over this district,' he said, 'and I speak with pride of your thriftiness. I have been at Farmer Briggs', and I speak the truth when I say that outside of Coyote county there is no such herd of Poland China heifers in the world.'

"A ripple of surprise ran through the audience.

"Look at Farmer Jones' polled Angus sheep," he cried, undaunted. "Look at Smith's Berkshire chickens. Look at Dobbin's Plymouth Rock pigs."

"At this point Dobbin arose, hurriedly left the hall and was heard falling down three flights of stairs.

"The young man knew something was wrong. The audience was getting restless. They were all in favor of him before—but this talk? Was he a fraud?

"I point with pride," he cried grandiloquently, "to the Early Rose apples that Farmer Tootles raised this year."

"Farmer Tootles arose hurriedly, and muttering something under his breath, tried to crawl through the transom.

"I call the attention of the world to the Maiden Blush turnips that Farmer Andrews raised. Where, I ask, is there anything to equal the Ben Davis potatoes grown by our dear friend, Bill Johnson?"

"The Republicans were upset by this talk. Some left the hall, while others slid down in their chairs and blushed as red as a furnace on a dark night.

"The red-headed man got up and said sneeringly: 'Haven't you got something to say about machinery, too?'

"Yes, sir, I have, sir. And I ask you, sir—

you who have the impudence to interrupt me, sir—can you show, sir, in all this broad land, better farming implements than you can find right here in Coyote county?"

"This glittering repartee evoked deep silence. "Oh, my friends," he continued, "I can imagine now the happy sunlight, the yellow fields, the clack of the Singer reaper and the musical buzz of the Wheeler & Wilson threshing-machine."

"That convention arose as one man. It howled long and deep. Somebody yanked the speaker off the platform by the coat-tails, and somebody else named the bow-legged aspirant and they nominated him by acclamation.

"Did the ignorant young man get a six-shooter and kill himself? Is he now sitting on the front stoop of the golden whence? Oh, no. The Alliance, the third party, held its convention six days after. He bolted the Republican party and captured the nomination from the Populists, and was overwhelmingly elected six months later."—Chicago Inter Ocean.

THREE KINDS OF THEM.

Eddie Dinwiddie was in a mood of inquiry, and he said:

"Papa?"

"Well, Edward?"

"Papa, what is a canthook?"

"A canthook? Don't you recollect, son, when we were at grandpa's saw-mill last summer and looked at the men rolling logs about with a huge pole, to which was fastened a gripper or hook of steel? That was a canthook. There is also—"

"But, papa, isn't there another canthook?"

"Wait, my son, until papa finishes. In former times barbers and toothdrawers used a canthook for pulling teeth. It was on the same principle as the one mentioned, only of course smaller. The prongs were inserted under the roots of the tooth, and a twist finished the job. Now, son, that explains it."

"But, papa?"

"Well?"

"Don't you know anything more about a canthook?"

"No, my son."

"How does a muley cow strike you?"—Pittsburg Chronicle.

AT THE CLOSE OF DAY.

Little Ethel—"Read me some more of that pretty story; won't you, mamma?"

Mamma—"Very well. Where were we? Oh! here is the place. 'When the half-frozen travelers had reached the shore, they climbed up the bank, and skirting the woods—'

Little Ethel—"What did they do that for, mamma?"

Mamma—"Why, it was winter, you know, dear, and the wind blew fiercely, so they—"

Little Ethel—"Oh! I know. The limbs of the poor little trees were bare, so the travelers skirted them. Wasn't it nice of the kind travelers?"—Togue.

SOLVED.

A little colored boy stood with his small sister at the edge of a water-lily pond in Florida.

"Ephraim," said the girl, "what makes so many cat's-tails grow in dis hear pon?"

"Doan' you kuow?" inquired Ephraim.

"Why, dey grow up from kittens dat people hez drowned in de pon', of course."—Housekeepers' Weekly.

WOMAN-LIKE.

"I believe John will propose to me to-night, ma. If he does, what shall I say?"

"Accept him, of course."

"Yes; but what shall I say first?"

"How long have you been expecting this proposal?"

"Two years."

"Well, I don't know what you can say except 'This is so sudden!'"—Cape Cod Item.

Get the Genuine.

If you suffer with lame back, especially in the morning, ALLCOCK'S PLASTERS are a sure relief.

If you cannot sleep, try an ALLCOCK PLASTER, well up between shoulder blades—often relieves—sometimes cures. Try this before you resort to opiates.

If any of your muscles are lame—joints stiff—feel as if they wanted oiling—or if you suffer with any local pains or aches, these plasters will cure you.

If you use them once you will realize why so many plasters have been made in imitation of them. Like all good things they are copied as closely as the law allows. Don't be duped by taking an imitation when it is as easy to get the genuine.

If you always insist upon having

ALLCOCK'S POROUS PLASTERS

and never accept a substitute, you will not be disappointed.

HAVE YOU GOT PILES

ITCHING PILES known by moisture like perspiration, cause intense itching when warm. This form and BLEEDING OR PROTRUDING PILES YIELD AT ONCE TO DR. BO-SAN-KO'S PILE REMEDY, which acts directly on parts affected, absorbs tumors, allays itching, effecting a permanent cure. Price 50c. Druggists or mail. Dr. Bosanko, Philadelphia, Pa.

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Clears the Head. Cures Offensive Breath. Hay Fever, LaGrippe, Etc., or Money Refunded. Price complete with four months' treatment by mail \$2. The medicine is put on a sponge in enlarged part of medicator. Insert twin tubes in nostrils, single tube in mouth, then blow; thus your lungs force highly medicated air into all parts of the head and throat. Send for terms, testimonials, and further particulars. RAMEY & CO., 85 Dearborn St., Chicago, Ill.

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Gleanings.

RUSSET ORANGES.

Up to within a year or two there has been a dislike among purchasers of oranges to buy the fruit that has a bronzed and rusty appearance. Such oranges are known to the trade as "russets," and they have always sold for less than the fruit that has a bright and golden skin. But a change has come about. Dealers in the fruit do not know how to account for the calls for the russet oranges that are made. If they should go to Florida it would all be very plain to them. The calls come from people who have been there, and who have come back with a theory about oranges.

When the owner of a grove goes to his trees to get fruit for his own use, he always selects that which shows the russet on the skin. Asked why he does it he tells you that the russet orange is the sweetest and the best, and that he eats them from choice, even though they do not look so well on his table. Then he goes on to tell you that the russet orange is not, as it appears, an orange about whose jacket there is some defect. The peculiar color, he says, is due to the fact that the rind has been punctured by the gnats in search of a meal, and that these flies are very, very shrewd, and will touch no fruit but the very best and the very sweetest. "The flies know which are the sweetest oranges," he says in a convincing fashion, "and if they have taken the trouble to pick out the ripest and best of the fruit, why should not I take advantage of their instinct and enjoy a feast of the best?"—*New York Times*.

LETTUCE MATURED BY ELECTRICITY.

Among the bulletins of the agricultural experiment station of Cornell university is one that gives a very interesting account of some experiments made on plants with a view of determining the influence of the electric light upon their growth. To that end a greenhouse was divided into two equal parts by a tight board partition. On one side the plants are left to the ordinary conditions of growth, but on the other side the vegetation was treated to the sunlight by day and to the electric light by night.

The results of these experiments showed that the use of the electric light at night hastened the maturity of the plants, and the nearer they grew to the light the greater was the acceleration. Lettuce thus treated was sold two weeks earlier than its neighbors on the other side of the partition, although both were planted at the same time. Equally successful results were obtained with other vegetables.—*Philadelphia Record*.

A CURE FOR EARACHE.

There is no more acute pain of childhood than earache. This seems to be caused by the sensitiveness to cold air of the tender membranes within the ear, and may be stopped by filling the ear with a little cotton dipped in sweet-oil and warmed. If this does not give relief, a few drops of laudanum, warmed by setting the bottle in hot water, may be added to the oil. A roasted onion is a favorite remedy with old women. If it is applied to the ear as hot as it can be borne, it will relieve an obstinate case, and certainly is harmless.

When cotton has been put into the ear and has served its purpose, it should be carefully removed, and no bits left behind to work into the passages. Deafness is frequently caused by the presence of some such foreign body in the ear.—*Atlanta Journal*.

THE PROGRESSIVE JAPANESE.

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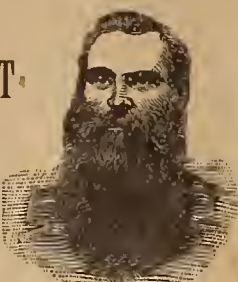
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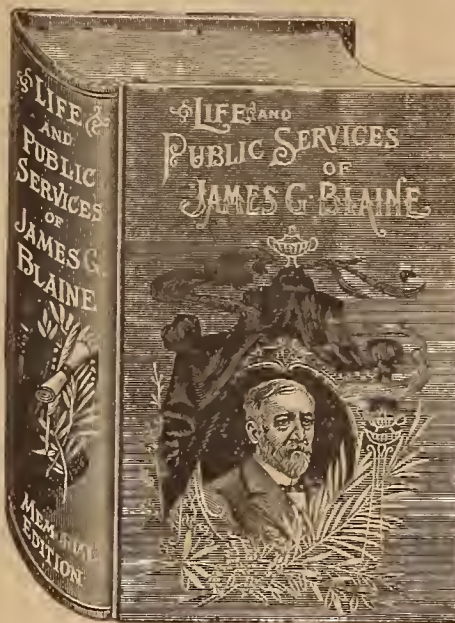
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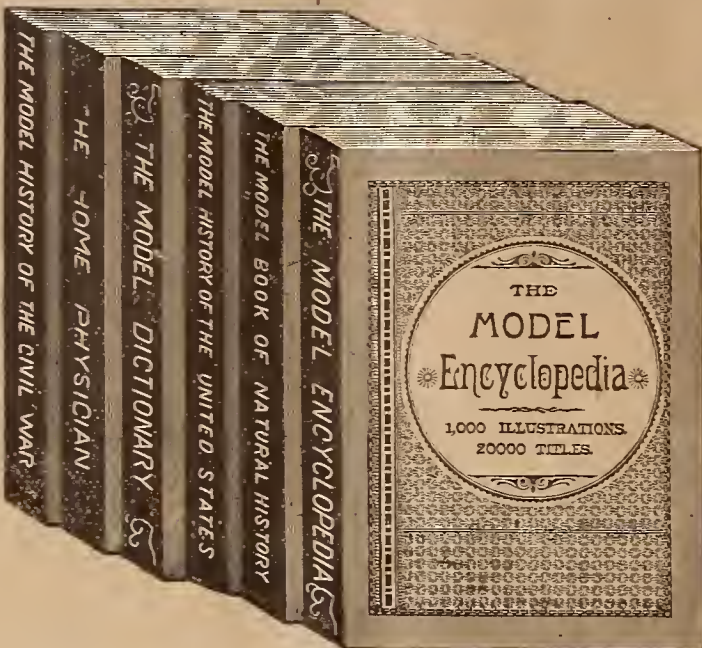
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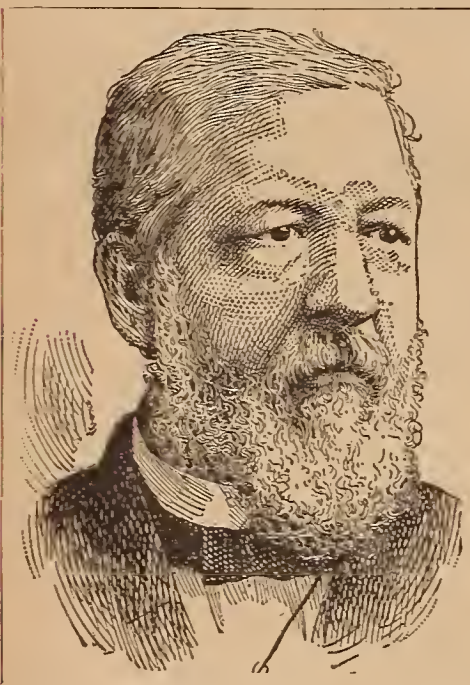
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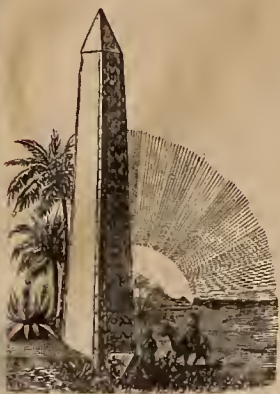
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HOW THESE OFFERS

TO YOUR FRIENDS.



A beautiful and happy girl, With step as light as summer air, Eyes glad with smiles, and brow of pearl, Shadowed by many a careless curl, Of unconfined and flowing hair, A seeming child in everything, Save thoughtful brow and ripening charms, As nature wears the smile of Spring, When sinking into Summer's arms.

MEMORIES. Size, 10 by 20 Inches. This is a very rich and handsome picture, the subject of which is taken from the poem of the same title, by the late John Greenleaf Whittier, America's king among poets. A reading of the first verse of the poem will give better description of the picture than any other pen dare attempt. The inspiration of the poet seems to have been caught by the artist. The figure of a sweet and lovely girl standing among trees and beautiful flowers, bathed in soft rays of sunlight and holding in her hand a cluster of roses, makes a picture that is a veritable poem in colors.

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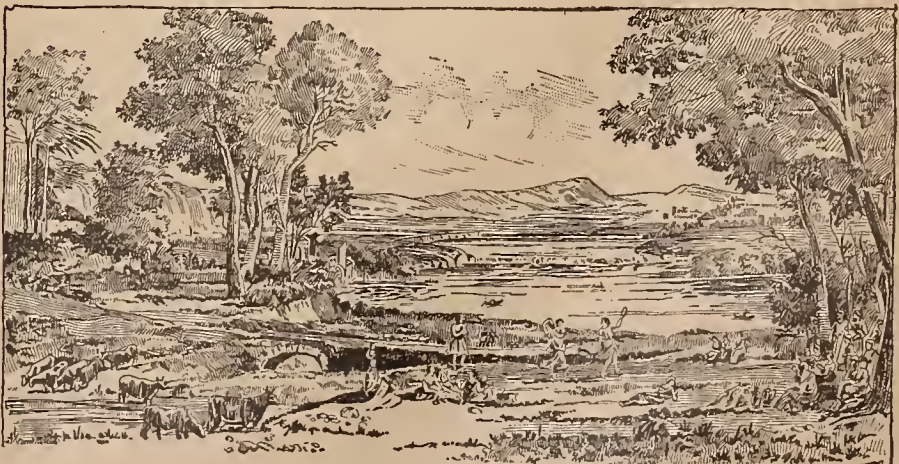
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MORNING GLORIES. Size, 7 by 33 Inches.

This picture is an ideal creation of one of the best and most skilful artists. It is in the form of a folding screen, which, by being slightly folded between each subject, may be set upon the mantel, piano or table, and without framing or any other preparation, makes one of the most novel and striking decorations to be had. The whole screen is bordered, and the subjects entwined about with the delicate vines and blossoms of the Morning Glory, and each subject is the loving face of one or more of those little tots who are the real "Morning Glories" of every home, the light and sunshine of the family. If preferred this picture can easily be framed.



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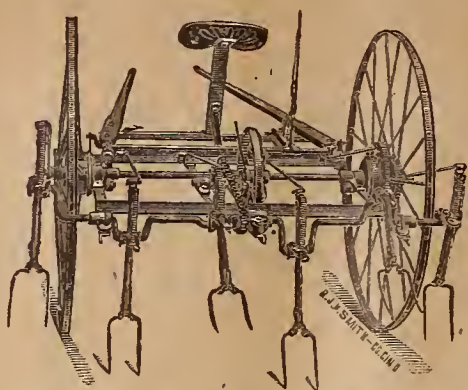
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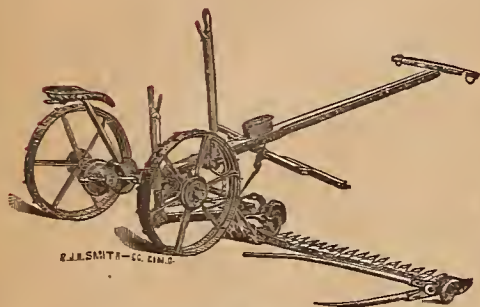
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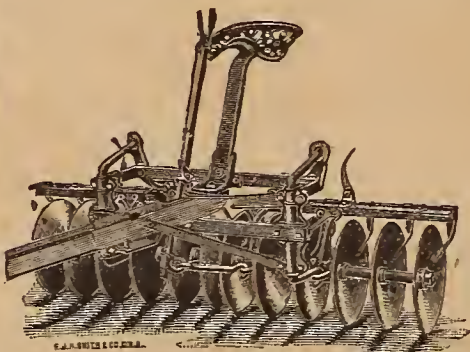
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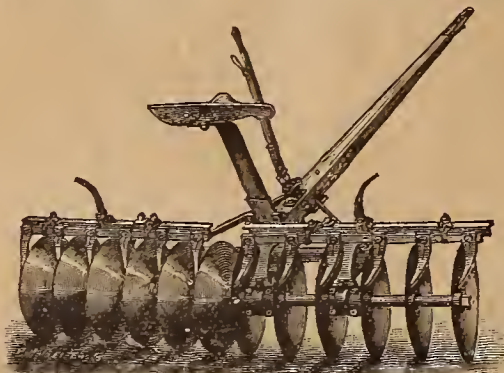
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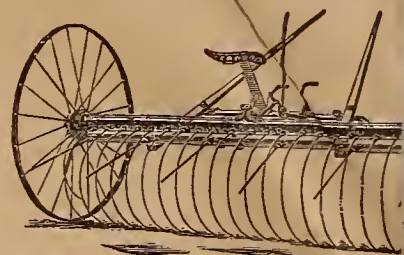
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CORN PLANTERS**

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IMPROVED UP TO DATE.

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CORN PLANTER.**



Improved for 1893.
Combines a Rotary Drop Planter, a Check Rower and a Drill.

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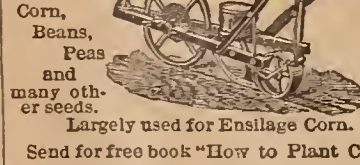
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STERLING, ILL.**

**LOOK HERE!
What the Public
has to say
about the
BARKLEY
GOODS.**

NEW IBERIA, LA., June 7, 1900.
Dear Sirs:—I have received the buggy in good order, and am perfectly satisfied with it. I think it the most nicely finished buggy I have seen in this section of the country. Every one admires it. My wife is highly PLEASED WITH IT.
I am very respectfully,
J. B. WINTERS.

GRANGEVILLE, IDAHO, June 16, 1899.
Dear Sirs:—The set of \$5.50 harness that I ordered for Chas. Bentz, of this place, came O. K., and every one here were much surprised, as they are as good as harness sold here for \$20. Enclosed please find \$10 for which please send your No. 6, \$10 harness (nickel trimmed), by express to Frank Vansice. Yours truly,
E. BECK, Postmaster.

MANCHESTER DEPOT, VT., June 30, 1899.
Gents:—The top buggy and road cart are at hand all O. K. They are VERY SATISFACTORY, and in every way appear fully equal to your representations. I think you may, in due time expect other customers from this locality, as the goods are liked by ALL who have seen them. Yours very truly,
R. H. BRADLEY.

**HERE IS THE
HARNESS**
THAT WE ARE SELLING SO MANY OF AT
\$5.50.

Send P. O. Order or Registered Letter and get a Set with Over Check or Side Saddle. WE DEFY COMPETITION.

**WE ALSO MANUFACTURE
GOAT HARNESS**
from \$1.50 to \$16
GOAT or DOG CARTS
at \$4 and \$7.

Write for
GOAT CATALOGUE.

For 20 consecutive years we have made and sold HARNESS to Dealers, BUT NOW we are selling direct to consumers, saving you the traveling man's expenses and dealers' profits.

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Write for Illustrated Catalogue and Prices.

FRANK B. BARKLEY MFG. CO. Garden City Block, CHICAGO, ILL.

Mention Farm and Fireside.

**GRIND YOUR OWN
Meal,
Oyster Shells,
Graham Flour & Corn, in the
\$5 HAND MILL (E. Wilson's
Patent).
100 per cent. more made
in keeping poultry. Also POWER MILLS and
FARM FEED MILLS. Circulars and testimonials
sent on application. WILSON BROS., Easton, Pa.**



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EASTERN EDITION.

VI. NO. 11.

MARCH 1, 1893.

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this issue is
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e Circulation for the 24 issues of
e last 12 months has been

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ed. The Eastern edition being
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ig 125,200 copies this issue.

**Fireside has More Actual Sub-
than any other Agricultural
ournal in the World.**
27 Chestnut St., Philadelphia, Pa.,
and Springfield, Ohio.

ent Comment.

io food and dairy commissioner
ssued the following circular to
eople:

s of work in this department for
months have developed the fact
f any of food adulteration has
positions of the five hun-
dredth per cent of the five hun-
dredth analyzed by this department
1892, have been found to be adul-
terated. Adulterations have covered
articles of food, and the adulter-
ations have included every conceivable
able to incorporate with a food
is a fair statement that immense

South Carolina phosphate rock
are used in our food products
go to our fields as commercial
salicylic acid and kindred anti-
used in every way possible, and
shelf goods. Their effects are
deadly because slow and insu-
er action, and it is safe to say
these are indirectly traceable to the
articles as adulterants in food prod-
re caused by the most deadly
fects our community.

erated goods are upon the shelves
very grocery in our land. Both
d retail dealers have asserted to
grocery house in the state is en-
m adulterated goods. Although
not absolutely know, he is in
case morally certain that some of
ells are not just what they are
and in many cases he sells the
for food, and at prices from
adred times their cost. The in-
th which goods are bought by
le carelessness with which they
astounding beyond measure, so
the rule in buying is not, what
of your goods, but what price
e bear.

tion of law we have been pros-
s throughout the state. This
eir indignation, and by every
e they have sought to prevent
ions. Some of their number
asserted that they could and
the action of the legislature.
will show how thoroughly they
g to carry their threats into

s' *Sentinel*, the paid paper of the
Cincinnati, in its issue of Feb-
says: "Below we publish the
F. H. Williams, who shows
existing pure food law of our
gal standpoint, to be absurd,
just in its application. We
friend on every point, and hope
s will often be benefited by his
to the *Merchants' Sentinel*."
the law as it now stands, Mr.
"The enforcement of its pro-

shall be suspended until the general assembly
may have an opportunity to amend the law.
In accordance with this program the retail
grocery dealers have been using every means,
by attorneys and otherwise, to attain their
purpose. On Monday night, February 13,
1893, the wholesale grocers' association of the
state of Ohio met in the Chittenden hotel, in
Columbus, and appointed a committee of
twelve of their number to appear before the
legislature in their interest. Last night they
offered a substitute for house bill No. 1,176
(pure food bill), which, if enacted into a law,
would render it impossible to convict any
dealer in adulterated goods who desired to
evade the law, and to-day we have the spec-
tacle of our legislature hall filled with lobby-
ists from this and other states seeking to
barter the health of Ohio's three and a half
millions of food consumers for selfish gain
and a desire for immunity from responsibility
for selling adulterated food. If they attain
their ends the people will be at the mercy of
unscrupulous dealers, and this department
will be rendered almost powerless to enforce
law. Unless the people rouse and rally to the
support of their own interests and give their
time and influence toward preventing the
consummation of this outrage, they may ex-
pect that the legislature will accede to the
wishes of these people. Therefore, let the
people, by every means possible, bring such
petition, by letter or resolution—bring such
pressure to bear upon members of the legisla-
ture that right shall prevail.

THE net exports of specie and bullion
during the calendar year 1892, says
the *Engineering and Mining Journal*,
reached \$73,295,105, although the balance in

bonds, or that this money is held to our
credit in Europe. It is probable that both
explanations are true, the latter, however,
to a small extent only, and it is equally
true that both show a widely prevailing
disbelief in the stability of our currency
and financial system. Since the passage of
the Sherman act of 1890, the belief has
grown, not only abroad, but among our
own people as well, that the United States
is tending toward the position of a silver-
basis country.

THE conditions unfavorable for the es-
tablishment and maintenance of
creameries, says *Hoard's Dairyman*,
may be briefly summed up as consisting in
lack of cows and absence of the true co-
operative spirit among cow owners. These
conditions being supplied, there is no rea-
son why, with integrity and average busi-
ness ability in management, a creamery
should not prove in any community a
profitable investment and a great labor-
saving institution.

There is a great deal of loose and incon-
sequential writing and speaking on this
subject, and ever so much misapprehen-
sion, and applied emphasis placed upon the fail-
ures which are reported from time to time. We
have an abiding faith that when the statis-
tics are all gathered and tabulated it will
be found that the percentage of loss in the
creamery business, whether to proprietors
or to patrons, or to both, will be found
much less than in any other line of indus-

ment, to better cows, better
feed, better methods and bet-
Each monthly payment brings
and his cows to judgment
there is no appeal. Not every
the courage to apply the law
taught him to his own impro-
many have, and thus the aver-
and the community as a whole

AT this writing it seems v-
that the Hawaiian tr-
ratified, and that the
be annexed to the United S-
some form of territorial gove-
his message to Congress the pr-

"It is essential that none of
great powers shall secure the
Such a possession would not
our safety and with the peace
Prompt action upon this treat-
sirable. If it meets the app-
senate, peace and good order w-
to the islands under existin-
such time as Congress can
legislation a permanent form
ment for the islands. This
should be, and I doubt not
only just to the natives and a-
idents and citizens of the island
be characterized by great libe-
high regard to the rights of a-
and all the foreigners domicile

THE joint committee of the
ture appointed to invest-
periment station compl-
to obstructive litigation has s-
report. The committee four-
state had a clear title to the lan-
pied by the station, and re-
that the auditor of state be in-
resolution of the legislature to
drafts of the state board of co-
station for the \$26,000 unexpen-
in the state treasury; that so long
county pays the principal and
the bonds issued to secure the
the station, no action shall be t-
state to remove the station;
case Wayne county defaults in
the bonds, the state may sell the
with the proceeds pay off the
outstanding bonds.

LIKE the patch-work usu-
working out the road
work road legislation d-
nothing for progress or per-
provement. There is entirely
it. Road bill after road bill is
into the legislature. Most of
special or local bills. Some of t-
all right, in the absence of nec-
sions in the general laws. Ot-
tended to serve private interest
the public good, and should be
defeated. The road laws need
oughly revised and codified, so
be a system harmonious in a-
Our present system is becomin-
more complicated from the
additions it receives annually.

ASTRONG argument in f-
latest improved syste-
dairying is the fact th-
leading markets of the count-
butter commands the highest p-

EXPORTS AND IMPORTS OF THE UNITED STATES.

	Exports of merchandise.	Imports of merchandise.	Exports of specie.	Imports of specie.	Net exports merchandise.	Net exports specie.
1887	\$715,301,044	\$708,818,478	\$ 36,789,414	\$61,661,913	\$ 6,482,566	\$24,872,499*
1888	691,761,050	725,411,371	64,406,852	26,868,742	37,538,110*	37,538,110
1889	827,106,947	770,521,965	91,627,690	31,228,894	56,584,382	60,403,796
1890	857,502,548	823,397,706	50,602,863	42,656,209	34,104,822	7,946,654
1891	970,509,646	828,320,943	106,779,460	63,162,860	142,188,703	43,616,600
1892	938,419,893	876,198,179	112,472,304	39,177,198	62,221,714	73,295,106

*Net imports.

trade in our favor on merchandise alone
amounted to not less than \$62,221,714.

The country is not ruined, it is true, but
the free gold in the United States treasury
has reached the lowest point in years, timid
persons are hoarding gold, and there is,
above all, a feeling of unrest, a belief in
approaching disaster, which, by crippling
business, may bring about the very thing
feared. That the condition of affairs is ab-
normal can readily be seen from the table
showing the exports and imports of the
United States, both of merchandise and
specie, since 1887.

It is noticeable that during 1891 and 1892,
with net exports in our favor to the
amount of \$204,410,447, this country export-
ed gold and silver to the amount of \$219-
251,764, and only imported \$102,340,058,
making a net export of \$116,914,706, which
far exceeds that of any other two years in
the list. In 1889 the net exports of gold
amounted to \$60,403,796, but it is a well-
known fact that this outward movement
was to a great extent caused by the large
American attendance at the Paris exposi-
tion. No such reason can be brought for-
ward to explain the movement in 1891 and
1892, and we must look elsewhere. The
amount annually spent abroad by Amer-
icans is constantly increasing, but it fails

try—thanks to the never-wearying benef-
icence of our foster-mother, the cow, and
the high average of old-fashioned honesty
among cow keepers. Not every blacksmith
shop, or grocery, or sawmill, or railroad is
a success.

Creameries are as much a necessity of
modern civilization as flouring mills, or
woolen and cotton mills. Owing to the
perishable nature of the raw material, as
well as of the product, they can never
wholly supplant farm-made butter, nor
supply certain exceptional demands which
are willing to pay two or three or four
prices for special service. None the less,
the general statement may be made that
the creamery stands for economy and im-
provement in butter making. It makes
more and better butter from the same
amount of milk and with less labor. It
furnishes a product more uniform in qual-
ity, and more uniformly distributed
throughout the year, and puts it upon the
market at less expense and sells it for more
money.

There is no more reason in the nature of
things why the farmer should manufacture
butter from milk, even for his own use,
than that he should make flour from wheat
or cloth from wool or thresh his grain with
a flail.

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or Premium List and see premi-
for obtaining new subscribers.

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oney in a registered letter. All post-
required to register letters whenever re-
so. Do not send checks on banks in

sent through the mail, should be care-
d in cloth or strong paper, so as not to
through the envelope and get lost.
ps will be received in payment for sub-
sums less than one dollar.

the "yellow label" shows the time to
subscriber has paid.

is received the date will be changed,
answer for a receipt.

nces. Remember that the publishers
fied by letter when a subscriber wishes
oped, and all arrears must be paid.
ing your subscription, do not fail to
renewal. If all of our subscribers
great deal of trouble will be avoided.
r name and initials just as now on the
label; don't change it to some other mem-
ily; if the paper is now coming in your
gn her name, just as it is on label, to your
al.

Advertisers in this Paper.

at all the advertisements in this paper
firms or business men, and do not in-
nowing insert advertisements from
parties; if subscribers find any of
rvice we should be glad to know it.
this paper when answering advertise-
menters often have different things ad-
dual papers.

Our Farm.

THE AGRICULTURAL FIELD.

ICE CROP.—What a winter this
making ice! Every day for
ks load after load of most
nificant cakes have been pass-
my residence, and I feel sure
aying that the ice crop gath-
ered this year sur-
passes anything in
amount ever known.

young neighbors has been
erative business cutting ice
ery, and selling the cakes at
f and two cents apiece. These
ver fifteen inches thick, and
upwards of two hundred pounds
ybody who has an ice-house,
use some outbuilding for the
stored a big lot. I gave the
my ice-house to our "profes-
sioner on contract. It costs me
and my house is full of mag-
well packed in. The rapid
he modes of managing and
ng are also apparent in the
It is not many years ago
mer who had an ice-house and
a season's supply of this com-
modity was the exception;
now he is getting to be the
rule. And really, there is no
reason why any farmer
should be without ice dur-
ing the summer, if he has
access to the ice in winter.
No costly equipments are
needed. A permanent, serv-
iceable ice-house can be put
up cheaply. It requires but
a small space, say ten feet
or twelve feet square being

PAPER OR FELT LINING.

SAWDUST.

DEAD-AIR SPACE.

eded for an ordinary family.
ills double and lined with
er, or the space filled with
chaff. Even this is not ab-

A neighbor of mine is just harvesting his
ice crop. He is building a new house, and
has no ice-house yet; so he packs his ice on
a well-drained foundation, right in the
open air, and will put a building over it
afterward.

Before me is a little book entitled "The
Ice Crop." It is written by Theron L. Hiles,
and published by the Orange Judd Co., of
New York City. Price \$1. It covers the
whole range of the ice business, and tells
how to harvest, store, ship and use ice. I
find in it some good things that are of par-
ticular use to farmers. The following sug-
gestion, for instance, is well worth heeding:

"A little organized co-operation in any
farming community where ice-cutting
privileges exist, will secure an abundant
supply of ice for all purposes for the entire
section or neighborhood. It is customary
to do the threshing in turn, and all partici-
pate in the use of the threshing-machine
and power, where only very extensive
farmers find it profitable to have an outfit
for their own exclusive use. In a similar
manner the benefits of cold storage can be
obtained. The house can be owned by in-
dividuals, or by a few families who may be
living near enough together to conveni-
ently use one in common. The tools and
outfit for cutting and handling the ice can
be owned by a few enterprising young
men, who can fill a large number of houses
yearly by contract; or the appliances can
be the joint property of all those having
cold-storage houses, who may combine to
secure them, and also combine their labor
in securing the ice crop. This work is
done when the ordinary duties of the farm
are light, and other interests would not be
interfered with. An outfit of tools neces-
sary to harvest, in good shape, one hundred
tons of ice, will just as well harvest ten or
fifteen times this quantity, and would
really secure the larger quantity to better

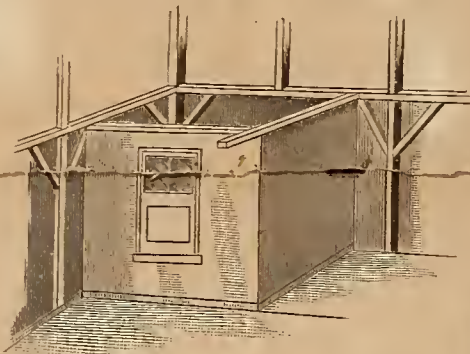


FIG. 2.—ICE STORAGE IN CORNER OF BARN.

advantage than the smaller one. The tools
are durable and will last many years; ice-
plows which have been in use for fifteen or
twenty years are still doing good service."

One of the illustrations in the book re-
minds me of the ice-pits as I have seen
them in Virginia. They are a rather crude
affair, and probably modeled after the ice
or snow pits of ancient times. A vault or
pit, of circular form at the top and tapering
to a point at the bottom, is scooped out of
the ground; the sides are lined with rails,
and the big funnel is packed full of ice and
the whole covered with a kind of roof. I
think it is out of date. The ordinary ice-
house, as we now use it, is much more
convenient, and perhaps but little more
expensive in construction. What a sim-
ple affair it can be made to be is shown in
Fig. 1. A corner of the barn also may be
used for the purpose, as shown in Fig. 2.
Use dry sawdust for packing around and
over the ice, and use plenty of it.

The question of cold storage has been dis-
cussed much at farmers' and fruit growers'
meetings in recent years. It is a live
topic, as the problem of keeping fruits and
other articles in good shape for some length
of time has an important bearing upon the
question of profit. In accordance with the
drift of these recent discussions, the book
recommends a wall which contains dead-
air spaces, felt or paper linings, a section
packed with mineral wool (or sawdust) and
an outer circulating air space. Fig. 3 shows
a section of such a wall. The middle sec-
tion is filled with dry sawdust; the outer
sections consist of dead-air spaces. The
outer surface of the middle section is lined
with prepared water-proof paper. The
inner wall is of matched lumber, and the
outer one is of weatherboards. This con-
struction keeps the sawdust dry, and the

made a part of the same building to advan-
tage. Dampers are placed at the bottom of
the outer wall spaces. By regulating these,
the circulation can be adjusted to meet all
conditions. For fruit alone, however, I
would prefer cold storage without the use
of ice. Probably one of the best plans (and
this plan is also spoken of and illustrated
in the book) is to dig a cellar into the side
of a slight hill, put a wall on the lower
side, with the excavated earth banked up
against it from the outside, and the struc-
ture covered with a triple roof. On top of
the first roof boards a layer of straw (a foot
thick) is placed; upon this the second set
of roof boards covered again with a layer
of straw, then a tight cover of matched
boards and two thicknesses of tarred paper
over the whole.

T. GREINER.

THE ANNUAL AGRICULTURAL CONVENTION.

The annual agricultural convention for
the purpose of electing members of the
state board of agriculture met in the senate
chamber of the state-house on Thursday,
January 12th, the senate having adjourned
that they might hold their meeting there.
The attendance was good, although the
counties were in several cases represented
by some one else than the president of the
county agricultural society.

As is the custom, the governor welcomed
the delegates. Referring to the question of
roads, the governor, as reported by the
Dispatch, said:

"I understand that you have been dis-
cussing, among other things, the question
of good roads. I know of no subject of
more importance to the people of Ohio
than that. I know of no need so great in
Ohio as good roads. I know of nothing
that would more increase the value of your
property and of my property and the prop-
erty of all the people at large than to have
in all the counties of Ohio macadamized
roads, such roads as we already find in
some of the counties of the state. And I
trust you will be able in the course of your
deliberations to devise some plan whereby
this can be accomplished in every part of
the state. I have already twice called the
matter to the attention of the general
assembly, but movements of this sort, to be
effective and be approved by the people,
must come from the people, and the people
who are most largely interested in that
subject."

Governor McKinley also referred to the
need of taking proper care of the canals of
the state.

The president's address, by A. H. Kling,
was the next order. He showed the finan-
cial condition of the board to be good. He
said that during this winter there would be
held one hundred and fifty institutes in
eighty-five counties of the state. This was
said to be almost double the number of in-
stitutes held in any other state and at a
less per capita cost than in any other.

Mr. Kling took strong grounds against
the repeal of the Rawlings bill. He be-
lieved that there should be greater economy
in the expenditure of public funds.

The following caudates were nomi-
nated for the five vacancies in the state
board of agriculture: W. W. Miller, Erie
county; J. C. Bowers, Athens; A. H.
Kling, Marion; A. J. Clark, Guernsey;
George Lewis, Van Wert; M. A. Rouse-
bush, Carroll; J. C. Robinson, Seneca. The
first five were elected, being the retiring
members of the old board.

At the afternoon session Major H. E.
Alvord, of the department of agriculture,
Washington, D. C., and late president of
the Maryland agricultural college, deliv-
ered an address upon "Corn Stalks."

The speaker thought that business sense
should be relied upon rather than the legis-
lature. To make both ends meet it is
necessary to increase income or decrease
expense. Along this line is the more com-
plete utilization of corn stalks. The corn-
plaut is a proper symbol of American agri-
culture if not of American industry. Ohio
has 18,000,000 acres of improved land, and
raises 3,000,000 acres of corn.

About twice as much digestible substance
can be raised from an acre of corn as from
any other known fodder crop, such as tim-
othy or clover. The thrift of an agricul-
tural community is measured by the care
it takes of its corn crop.

Leaving aside the ear, which is about

the most carefully preserved le
as the chemical composition is
Three pounds of the butts are e
pound of corn-meal. One fifth
is lost in feeding in the field
barn-yard in the ordinary way.
who leaves the butts in the field
they lose the equivalent of
bushels per acre. The waste of c
in Ohio is worth \$2,500,000 to
annually. The speaker had cal
waste of corn fodder in the state

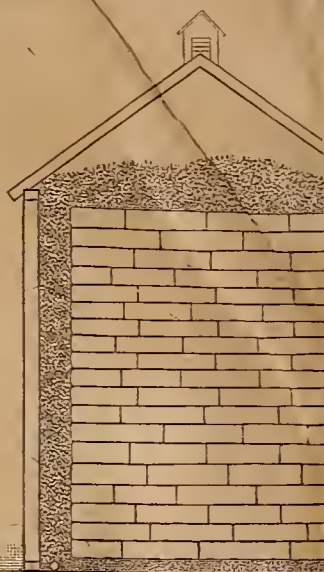


FIG. 1.—ORDINARY CHEAP ICE-

land to be from \$4,000,000 to
annually, which is more than th
the agricultural property of the s

Major Alvord had a large n
samples showing the compositi
various parts of the plant, and h
a sample of the butts of corn stal
into meal, which he said made f
buckwheat cakes. The audience
to sample this flour. He had fed
six weeks on the butts of corn sta
Steers fed on butts did as well as
on leaves.

The speaker insisted on the ne
cutting up the stalks in order
most of them. He uses a bull to
rope. The stalks are put in the m
and walks so far every day whet
any fodder to cut or not. The
bull. The cut corn fodder may
ened and allowed to heat slightl
will be softened and all will be e
main point is to present it to cat
shape that they will eat it.

WHEAT CROP FOR 1892.

According to the final estima-
department of agriculture the w
of 1892 was 515,949,000 measure
grown on an area of 38,554,430 a
showing a yield of about 13.4 bu
acre.

Kansas, by jumping from 54
70,800,000 bushels, becomes th
wheat state, followed, not very
Minnesota, with 41,200,000 bushels
this was beneficial financially f
may readily be judged from a c
of prices for the months in v
principal marketing is done for

Yrs.	Aug. 1.	Sept. 1.	Oct. 1.	Nov.
1891	75	72 to 80	60 to 76	
1892	58 to 60	58 to 60	53 to 55	53 to

It is not always indicative of
condition to cite facts showing a
tendency of prices in one loc
example: The New England sta
raise what they need for consum
this lack of supply bolsters up p
intermediary markets, even t
have a large surplus in all oth
the United States. However, w
said of Kansas will have equal
to the other surplus-producing s

It is a fact worth noting tha
price of wheat, as estimated by
ment of agriculture, on Decem
was exactly equal to the price
Wichita the same day. This s
clusively that there was no de
the new wheat came in, it st
stimulated the demand, thus rais
but nothing of the kind occur
had already been more whea
than was actually needed.
wheat is raised to make it profit

our methods. Why is it that they can raise twice as much wheat to the acre? They do this with ease. In 1891 the yield of wheat was between thirty-one and thirty-two bushels, and in 1892 something over twenty-six. Intensive farming is responsible for this. The planter has been preached to for years upon this subject, yet he goes along in the old rut, thinking he has learned all about farming through years of experience (that has, as a rule, profited him but little) in its practice and deeming the advice given by those who have studied the economic side of the question as visionary. Let me say that farming is profitable if scientifically practiced. Many examples to prove this statement could be cited if space would allow.

The fourth paragraph of my article on "Errors of Judgment in American Agriculture," in your issue of March 15, 1892, contains these words: "I have before me a press dispatch, in which the secretary of the Kansas state board of agriculture estimates the wheat crop of 1891 to have been fifty-eight million bushels in his state," and adds that "there possibly will be an increase in the winter wheat area of 25 per cent." Now this, to my mind, is a very serious mistake. Let us see why it is a mistake. I will not, through confidence in your good sense and judgment, assume that the area has been universally increased by such surprising figures; but, for example, we will assume that the wheat area throughout the United States has been increased 5 per cent, or, in other words, that the area devoted to wheat will be 41,000,000 acres, and presupposing that an average yield would be secured, the crop of 1892 will aggregate 540,000,000 bushels.

The increase did, I am sorry to record, prove a very serious mistake, which the price of fifty-two cents per bushel in Kansas and 62.4 cents for the whole country silently but effectually bear testimony. The aggregate volume of production was not quite as large as I predicted, making 515,000,000 instead of 540,000,000 bushels. For this we should be thankful, as the extra 25,000,000 might have carried prices to—well, it is better not to predict where. It is a fact that so much attention has been given to wheat raising that it has become unprofitable. This condition will grow worse until production is restricted. I trust the sad experience of the cotton planter will not be necessarily experienced by the wheat grower to awaken him to a realizing sense of what he should do to make his labor remunerative. It is difficult to comprehend that "the Dakotas grow more wheat to-day than was produced in the United States fifty years ago," or that "the exports of last year were greater than the aggregate product twenty-five years ago," yet these facts do not check the mad race between planters to see who can grow the largest crop, and in consequence receive the smallest profit. The more you have beyond actual demand the poorer you are. The following story is apropos and is in line with the above assertion: "Ex-Governor Wise and a friend were riding over the Virginia hills one day, and in passing a very neat farm-house, he incidentally mentioned that he owned it. The customary courteous praise was indulged in by his companion until interrupted by the governor saying that the place they were then passing he also owned. This statement brought forth the inquiry of how much land he possessed. In reply to which he stated that he did not want his friend to think he was so d—d poor that he owned all the land they saw." This is the position in which the wheat grower is placing himself. The more wheat he owns the poorer he becomes. At the present rate of yield 25,000,000 acres would suffice to grow what is actually needed for home use, and 20,000,000, instead of 38,500,000 acres should produce a crop of 500,000,000 bushels. This wasted area of 20,000,000 acres could be devoted profitably to grazing lands or to raising other crops that would pay better than wheat—say barley or buckwheat.

There was an increase in production of barley from 45,000,000 bushels in 1880, to 63,800,000 bushels in 1888. This increase was warranted by demand, as the imports have been steadily increasing for the past ten or twelve years. The average cash value per acre of barley has been steadily greater by from two to four dollars per acre than wheat. It stands fourth out of ten crops, at \$12.75, being exceeded only by cotton, tobacco and potatoes. Wheat stands sixth, at \$10.32, being exceeded by cotton, hay, tobacco, potatoes and barley. It would seem that, in view of these facts, and in consideration of a steady demand that is not now being entirely supplied by

the home-grown product, there exists sufficient cause for reducing the wheat area and in increasing the area devoted to the cultivation of barley.

It is my opinion that should farmers devote more time to the study of scientific agriculture that the harvests would be more profitable and thus release them from the bondage of millions of dollars worth of mortgage indebtedness.

E. M. THOMAS.

COSTLY CARELESSNESS.

Many farmers are very careless as to their cow-stables; they are full of cracks that let in the cold, the floors are dirty and slippery and the bedding insufficient. This carelessness costs them a great deal of money in an ordinary winter, but in this exceptionally cold one it is an extremely costly affair. So many fail to realize that it costs extra feed to keep the cows warm when they stand in a cold stable, and on farms where there is plenty of straw, I never could understand why so little of it

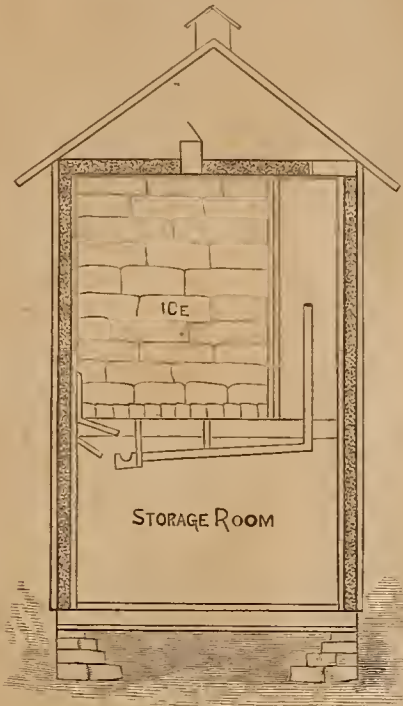


FIG. 4.—CROSS SECTION OF COLD STORAGE HOUSE.

was used for bedding. I have seen immense ricks of it rotting down in fields half a mile from the stables, and as there was no place to store it the cows would only be well bedded when the weather happened to be good and there was time to haul up a load of straw from the stack.

Where fodder is fed uneaten the rejected stalks are often used for bedding. These, on a board floor, make a very uncomfortable bedding, but if the stalks are cut fine they will make better bedding; but when straw can be had for the hauling, there is nothing so cheap and good.

This winter, cow feed of all kinds is high in price and dairy products not so high in proportion, and to feed the cows an extra amount of feed in order to keep them warm on account of a cold stable is a very expensive business. A man can make big wages by a few days work in making his cow-stable warm and providing an ample supply of straw for bedding, either stacked near the stable or stored in some convenient mow.

AND THE HEN-HOUSE, TOO.

What I have said about the cow-stable applies to the hen-house also, and with more force, because if the hens do not have a dry, comfortable house no amount of extra feeding will make them lay. Eggs have been unusually high this winter; even cold storage and lined eggs have sold at very high prices. The only reason for this is that cold weather has checked egg production and caused a scarcity. There is no stock that will pay so well as hens, and there is no stock that is so neglected. Those who have kept their hens in warm houses this winter, and have taken pains with their feeding, have been well rewarded. Those who have done just the reverse of this are disposed to say that poultry keeping does not pay. It is not too late to overhaul the hen-house and make it comfortable, and that straw that is going to waste is just the thing to line the walls of the house and for litter on the floor. Eggs as well as butter will probably sell at higher prices this year than they did last.

Are you going to make

BUTTER FOR THE WORLD'S FAIR?

I don't mean for exhibition there—though that should be done, too—but to sell to hotel and boarding-house keepers in Chicago while the great fair is being held. There will be an unusually strong demand for provisions of all kinds, and the articles

that will be likely to feel this demand by an increased price are milk, butter and eggs. Nearly everything else can be produced in quantity to meet the greater demand, but we can't increase the number of cows and hens in time to supply the greater demand for their products. The only way by which we can "get there" with our butter and eggs is to increase the yield of the cows and hens, and this we can do. Cows well wintered will be ready to do good work as soon as grass is fit to pasture; but cows half fed this winter will require some time on pasture before they will increase much in their yield, and they will not catch up to the well-wintered cows all summer. So we have an additional incentive this winter to give our cows extra care and feed; it is safe to predict that we will be well paid for it.

We must not forget that, no matter how scarce an article may be, it is the best quality that sells for the highest price, and prime butter will not have to wait long for a buyer, and the price will be governed by the quality. I don't see how selling poor butter can pay at any time; even when it brings a comparatively good price there is the loss of the extra money it would have sold for if it had been prime, and it costs no more to make good butter than it does bad. That is the curious part of dairying—why so many make poor butter when they might make good at no additional cost, except a little brain work.

A. L. CROSBY.



Children of Mr. and Mrs. M. M. Soller
Altoona, Pa.

Both Had Eczema In Its Worst Form.

Great mental agony is endured by parents who see their children suffering from diseases caused by impure blood, and for which there seems no cure. This is turned to joy when Hood's Sarsaparilla is resorted to, for it expels the foul humors from the blood, and restores the diseased skin to fresh, healthy brightness. Read the following from grateful parents:

"We think Hood's Sarsaparilla is the most valuable medicine on the market for blood and skin diseases. Our two children suffered terribly with the

Worst Form of Eczema

for two years. We had three physicians in that time, but neither of them succeeded in curing or even giving them a little relief. At last we tried Hood's Sarsaparilla and in a month both

HOOD'S Sarsaparilla CURES

children were perfectly cured. We recommend as a standard family medicine, and would not be without it." MR. and MRS. M. M. SOLLER, 1421 2nd Avenue, Altoona, Pa.

Hood's PILLS cure liver ills, constipation, biliousness, jaundice, sick headache, indigestion.

REID'S SMALL FRUITS, TREES, VINES, ROSES, CRATES AND BASKETS. NEW FRUITS A SPECIALTY.

Reid's greatest success "Timbrell Strawberry." \$500.00 IN GOLD for Best 10 BERRIES. Have you received our Catalogue? If not, why not? Buy direct and save one-half. Illustrated Catalogue FREE. E. W. REID, Bridgeport, Ohio.

GIVEN AWAY FOR TRIAL! Seeds

I have found that the best way to advertise seeds is to give a FREE sample for trial. For 30 Days, Only, I will send Free, one packet, your selection, of either CABBAGE, CELERY, CUCUMBER, LETTUCE, RADISH, PARSNIP, ONION, MELON, PEPPER, SQUASH, TOMATO, TURNIP, PANSY, ASTER, ZINNIA, BALSAM, CELOSIA, MIGNONETTE, SWEET PEA, PHLOX, POPPY or VERBENA, and my Bargain Catalogue for 2c. postage stamp to pay postage. \$4.500 is offered in premiums: \$300 is offered persons sending me largest number of customers by July 1st; \$500 for largest club orders; \$100 for largest farmer's or gardener's order and everyone will be paid July 1st. Mrs. T. B. Young, Rock City, Ill., sent largest club order in 1892, and I paid her \$500 her photo is in catalogue. Don't buy a seed until you see it. A 50c. certificate for seeds to be selected from my catalogue free with each order. F. B. MILLS, Rose Hill, N. Y.

WILSON'S SEED CATALOGUE COMMON SENSE For 1893— SENT FREE.

116 Pages, 200 Fine Engravings. Full of useful and instructive information. One of the most reliable catalogues published. All kinds of guaranteed Garden, Flower, and Field Seeds, Fruit and Ornamental Trees, Small Fruits, Choice Roses, Flowering Plants and Bulbs. Thoroughbred Poultry, Registered Pigs, German Hares, &c. Address SAMUEL WILSON, Seed Grower, MECHANICSVILLE, PA. The Great FREEMAN POTATO Given Away!

Seed Buyers.

After an old-fashioned winter, garden lore tells us to prepare for the best of everything from seed. You see the joy of the wise gardener in a hard winter,—nature is for those who know. As like comes from like, you will want to sow more than ever before the best SEEDS that grow. Where and how they are grown is told in BURPEE'S FARM ANNUAL for 1893, a handsome book of 172 pages, in the seed buyer's interest, which is cheerfully given free to any one wanting good seeds; whether our customer, or not, no matter we count on a fair hearing.

A half million seed planters annually receive our catalogues. If you are not among them it will pay you to send a postal card for a copy to-day.

W. ATLEE BURPEE & CO.

Seed Growers,
PHILADELPHIA, PA.
Mention Farm and Fireside.



This excellent variety is distinguished from all others by its large stiff stalks, as shown in the engraving, standing up like a tree without support of any kind. It bears abundantly of large, bright red tomatoes, very smooth and of fine flavor; it is extremely early and entirely free from rot; the leaves are very curly and of a dark green color, almost black, making the plant very ornamental in appearance as well as useful.

\$2,500 IN PRIZES.

\$700 for the largest Finch Tree Tomato grown in 1892, \$600 for 2d, \$500 for 3d, \$400 for 4th, and \$300 for the 5th. Conditions will be sent with this Collection.

THE MANSFIELD TOMATO
A mammoth variety, growing from 6 to 10 feet in height, the fruit is of large size and of excellent quality.

FINCH'S EVERGREEN CUCUMBER
A very handsome variety of superior quality, firm and crisp, of a dark green color, growing from 10 to 12 inches in length, and immensely productive.

GENUINE SURE-HEAD CABBAGE
Is all head and always sure to head. Very uniform in size, firm and fine in texture, excellent in quality, and a remarkable good keeper. Alfred Rose, of Penn Yan, N. Y., grew a head which weighed 64 1-2 pounds.

FINCH'S PERFECTION LETTUCE
The finest variety in the world. Does not head like some varieties, but forms large, compact bush-like plants which are always very crisp and tender.

I will send a packet each of Finch's Tree Tomato, Mansfield Tomato, Evergreen Cucumber, Sure-head Cabbage and Perfection Lettuce with my Illustrated Catalogue, also 7 Valuable Secrets, one of which cost \$300 to obtain. All by mail, postpaid, for only 25 cents in Silver or 3 Ten Cent Stamps.

FINE CINNAMON VINES FREE

This rapid growing Vine, with its beautiful heart-shaped leaves, glossy green peculiar foliage, and delicate white blossoms, emitting a delicious cinnamon fragrance, will grow from 10 to 30 feet in a single season, and for covering Arbors, Screens or Verandas is without a rival. I will send 5 BULBS FREE, and postpaid, to every person sending me 25 cents for the above Tree Tomato Collection. The bulbs will produce 5 Beautiful Vines, exactly the same in every respect as I have been selling for One Dollar. Address plainly FRANK FINCH (Box S) CLYDE, N. Y.

Every person sending for the above Tree Tomato Collection will receive a certificate which will entitle them to 75 cents worth of Choice Seeds (their own selection from my list), which will be sent free of charge and postpaid. This is the greatest offer ever made by a RELIABLE firm in this or any other country.

Be sure to mention this paper when you write.



SEEDS WARRANTED. Best in the World.

By mail, postage paid, 1 cent a package and up. Grand lot of EXTRAS given with every order. Prettiest and only FREE Catalogue in the world with pictures of all varieties. Send yours and neighbors' address.

R. H. SHUMWAY,
ROCKFORD, - ILLINOIS.

Mention this paper when you write.

Our Farm.

WINTER WOOD.

Now is the time to harvest the farm's annual yield of wood. Trees in the orchard, trees here and there on the farm that have lived out the span of their lives must go to the woodpile to render the last service—warm the hearth and make the kettle boil.

The ax must be used to cut down, but cut up the tree as little as possible where they fall, because it is better to have the chips at the woodpile. If chips be made in the mowing and forgotten, the mower finds them in the summer, and perhaps in consequence the cutter-bar loses a blade. Better not use ax except where one blow will cut off, but use the cross-cut saw.

When the snow is on the ground, hauling to the door is easy enough. Hitch a horse to the stone drag or boat and one man with crow-bar or hickory stake may load ordinary trees alone. There is nothing better for the kitchen fire than apple-tree wood, and every chip ought to be saved. Do not leave any branches or large twigs where the tree stood to clog the mower—nothing that can be gleaned with an ordinary hand rake.

Besides trees entire that yield to decay, there are many dead branches on trees that ought to come down. This is not the time of year to trim trees generally, but the dead branches may be cut any time. And down in the meadows, along the brook, the alders and the willows, increasing rapidly, encroach upon the land. Leave alders enough for bean and willows enough to supply osiers to help head up apples or cranberries.

In the pastures, if pine woods be near, the young pines, self-seeded, are springing up. They may furnish little fuel, but every little helps, and the farmer's wife likes nothing better to kindle a fire, to make a quick blaze, than pine needles and twigs.

And now having the wood at the door, continue to haek and hew till there be wood enough to last all summer, till next winter, that it will not be necessary to stop in haying-time to cut wood. The woodpile shows the man and the farmer. It ought not to be necessary to cut a stick from plowing-time to harvest.

Having the wood cut, house it. If it cannot be put under cover, pile it up; that is, make a bottom pile, and then above it place tier after tier of sticks laid perpendicularly. This makes a pile of wood in shape like a haystack, and the sticks laid perpendicularly causes it to shed rain.

And now get rid of the stumps. There is some wood in them, but the cost of getting out makes it dear. Better make an ash pile of it. Pour kerosene-oil into it and burn it out. If hard and not decayed, split with beetle and wedge and pour in the oil.

With the stumps out or burnt to ashes, let young trees take the places of those removed. Keep up the succession. A great many fruit-trees die annually, and no new ones are planted to take their places. When a bearing fruit-tree falls, there is a decrease of that product of nature fruit—that gives health, brain and brawn to the nation.

GEORGE APPLETON.

FRUITS AND VEGETABLES TRUE TO NAME.

We were very much surprised in reading an article from one of the very prominent farmers and writers in one of the eastern papers of large circulation, stating that many of his small fruit plants and vegetables, purchased from well-known nurserymen and seedsmen, were found, when coming into fruitage, not true to name. We were surprised that such carelessness was true of our prominent business, nursery or seed firms. We were still more surprised that when such serious charges were made that names were not given.

Such carelessness should not pass as mistakes and be condoned as such. It should be classed as criminal carelessness. The gardener plants his small fruits, having expended money and time, and three years, maybe, of patient waiting, only to be bitterly disappointed. If all fruits were alike profitable in every locality, then the loss would only be in the disappointment in not having the variety supposed. This would not be a serious one, perhaps would produce scarcely a protest from one who was only caring for fruit, and not for variety. But to one who was seeking a collection or a desire to gratify a certain taste, the loss is an aggravating one.

The great trouble is, our small fruits, with but few exceptions, are not adapted to our widely diversified country. A Wilson



Grand New Flowers, Vegetables and Fruits.

The King of Ornamental Plants is the Weeping or Filifera Palm. It is stately and beautiful beyond description. It can be grown in any window as easily as a Geranium, and is a superb addition to any collection of plants. It is of a compact growth, with elegant large fan-shaped leaves from which hang long, thread-like filaments giving the plant a most odd and beautiful appearance. In fact, there is nothing like it in cultivation. Plants are easily raised, as the seeds germinate quickly and grow rapidly. For only 30c we will send by mail, postpaid, all of the following:

- 5 Seeds of this lovely **WEEPING FILIFERA PALM**. Its chaste beauty will astonish you.
- 1 pkt. **PEACOCK PANSY**, the grandest of all. Charming peacock colors of unrivaled beauty.
- 1 pkt. **DATURA SWEET NIGHTINGALE**, enormous sweet lily-like blossoms, 10 inches long, pure white.
- 1 pkt. **TREE COCKSCOMB**, plants grow several feet high and bear many enormous heads of bloom.
- 1 pkt. **VERBENA PRIZE WHITE**, lovely large trusses, snow white and exceedingly fragrant.
- 1 pkt. **TOMATO MIXED HYBRIDS**, every color, shape and size is represented. A unique novelty.
- 3 Bulbs **GLADIOLUS**, beautiful named sorts, 1 white, 1 pink, 1 scarlet, all superb varieties.
- 1 Bulb **TUBEROSE**, **DOUBLE DWARF EXCELSIOR PEARL**, enormous spikes of elegant waxy blossoms.
- 1 Bulb **ZEPHYR FLOWER**, lovely free bloomer; large blossoms of exquisite beauty.
- 1 Bulb **CINNAMON VINE**, fine hardy climber, and our superb **BRONZE BLUE**, Catalogue of 156 pages and 7 Magnificent Large Colored Plates. All the above for only 30 cts. postpaid. These rare bulbs and seeds (worth \$1.25) will all flower this season, and we send them for 30c., only to introduce our superior stock. Get your neighbors to send with you, and we will send four of these collections for \$1. Order at once, as this offer may not appear again.

ALSO THE FOLLOWING SIX EXTRA CHOICE COLLECTIONS BY MAIL, POSTPAID.

- 30 **GLADIOLUS**, all sorts, mixed and the finest colors, flowering bulbs, an unparalleled offer.....25c
- 6 **LOVELY TUBEROSES**, flowering bulbs, 2 Tall Double, 2 Dwarf Pearl and 2 New Variegated.....30c
- 3 **AMARYLLIS**, all elegant blooming varieties of great beauty.....30c
- 3 **MEXICAN PRIMROSES**, different color, elegant new perpetual blooming plants of rare beauty.....30c
- 5 **GRAND FLOWERING CACTUS**, 5 sorts named, including Night-Blooming Cereus.....30c
- 5 **CHRYSANTHEMUMS**, new giant flowered, including pink Ostrich Plume and Cactus flowered.....50c

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NEW GRAPES—Esther, Rockwood, Eaton, Moyer and all others New and Old. Small Fruits. Catalogue FREE. **CEO. S. JOSSELYN, FREDONIA, N. Y.**

strawberry or a Concord grape comes near being a success every where; but how different when we consider a Parker Earle or a Niagara.

In vegetables it is largely a matter of earliness and productiveness, they being usually adapted to a larger extent of country. In this the loss usually comes the first year, and though a severe one, is not so far-reaching.

Now, no nurseryman should graft, or in any way propagate stock that he does not, for an absolute certainty, know as to correctness of name. The carelessness that would allow of varieties being intermingled would certainly not be tolerated by an honest nurseryman or one who cared for his reputation and expected to hold his customers. I supposed that seedsmen were very particular as to having their stock grown by parties who made a specialty of certain seeds if more than one kind is raised, and there could be no possibility of there being but the one variety in any package.

I either have bought my nursery and seed stock of more honest men, or else fortune has almost invariably favored me, for I recall now but one instance wherein my fruits were not true to name. I cannot be so explicit as to seeds; sometimes the varieties are so nearly alike that I may not have been able to distinguish them. I recall getting seeds of Everitt's Reliance pea, and in the package was the label marked, "Two bushels first and best." I judge the label was correct, and as a matter of opinion, I believe that many of the so-called "extra earlies" and "first and bests" are identical, except as to selection.

I had two packages of seeds the past season that I have written of as believing they were the same; but I shall get original stock, if possible, another season, and try again.

Now, I believe that our experimenters and writers, like the one referred to, should do the public a service by giving names, so that we may be on our guard. I will add I have generally bought through agents, but gave them to know I knew what I wanted, and could not be fooled by dazzling pictures.

J. M. R.

"A MERCIFUL MAN IS MERCIFUL TO HIS BEAST."

How many men keep this maxim in mind? How few practice this biblical as well as economic and humanitarian precept. This is severely cold weather, and any day—Sunday and week-day—nicely-dressed gentlemen and ladies come into town, protected by wraps, robes and mufflers, driving spirited, well-bred horses. When they reach town, the horses are warm and steamy. The team is tied to the hitching-post, without the least regard to a sheltered position, or the wind and storm blowing in their faces. There is no thought of blanketing them; the only question is, are they well tied?

The party rush into the church or store where there is a warm fire, and the wraps are removed with some degree of pride and no little parade of their costly, luxurious personal equipments. They visit, go shopping, attend divine service, bow at the chancel rail and partake of the sacred emblems of the Christian church, and finally return to the shivering, neglected horses, without one compunction of conscience as to the cruelty they have been guilty of.

Is this thoughtlessness or ignorance? No matter; it is a common criminal practice. Is it any wonder that horses die of pneumonia and many other disorders? Is it at all strange that horses are rheumatic, hide-bound, stiff-kneed, used up at an age when they should be in their prime? No; nor will there be a change so long as men can worship God in a comfortable chancel, while their team faces a winter storm without the least protection.

The above picture is no fancy sketch. It can be verified any day and almost any hour here in this city. Where is the Humane Society? Why is not such practice liable to prosecution under the law for cruelty to animals?

R. M. BELL.

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Our Farm.

NOTES FROM GARDEN AND ORCHARD.

CABBAGE LICE AND MAGGOTS.—A reader in Kansas asks for the cause of lice (green-fly) on young cabbage-plants, and for a remedy. As to the cause of lice, what could any one say? Nature has made provisions that there should be plant and animal life, whenever there are conditions favoring it. It is often stated that plants and animals in perfect health are less subject to the attack of insects and contagious diseases than ill-nourished or otherwise weakly plants and animals. That may be true, in a measure. It is not without exception. I believe, for instance, that lice, when once present, will thrive and multiply on perfectly healthy cabbages just as much as on weakly ones, provided that the state of the weather and temperature is favorable to the development of plant-lice. The difference is only that the healthy plants are better able to endure the attacks, and to outgrow the injury, than the others. Now as to the remedy, it is certain that we cannot poison plant-lice, for they do not eat, but live on the juices of the leaf and stem. We must destroy them by applying some substance that will kill by contact. Fortunately, we have quite a number of them that can be applied with deadly effect on the lice, and without harm to the plants. The simplest of all that I have ever used in the home garden is the hot soap-suds as they are to be had from the kitchen on wash-days. Their use, however, needs some discretion. I have applied them, almost boiling hot, by the dipperful and in a dash, on cabbages that had the heads well formed, without doing appreciable damage to the leaves, and yet with deadly effect on the green worm as well as on lice. But usually the suds, when the washwoman is through with them, are just about hot enough to kill these cabbage pests without doing any harm to the crop, especially if you can apply them with the garden sprinkler. They get cooled off quite a good deal before they reach the leaves. To apply them with a dash, however, makes surer work of it; besides, to fit this liquid for application with the sprin'ler, it must first be strained through burlap, or something of that sort.

Kerosene emulsion sprayed on the young plants is also sure to kill the lice, and green worm, too. But it should not be used on cabbage-heads when they are nearly ready for market or use, as the kerosene flavor is liable to stick. There is no objection to its use on plants in the seed-bed.

Next, we have a good remedy in strong tobacco tea. Boil some tobacco refuse in water until the strength is all out of it, then dilute until you have a liquid of the color of strong tea. Spraying or sprinkling this on the infested plants will soon clear them of the unwelcome visitors. Tobacco refuse can usually be had quite cheaply, and it is a good fertilizer, very rich in potash. Instead of using the tea, it will probably answer to mulch the ground in the seed-bed quite thickly with tobacco stems or tobacco dust. Lice do not like tobacco in any form. In the greenhouse we can keep them out by regular fumigation—burning tobacco stems once or twice a week until the house is well filled with the smoke.

Probably fresh wood ashes sifted liberally over the plants, when wet with dew or otherwise, will also put an end to the plant-lice trouble. Then we may try spray applications of strong solutions of any kind of potash salts, muriate, kainite, or even of the washing-powders sold in the groceries under various names. State Entomologist Dr. J. A. Lintner, in his last report to the Western New York Horticultural Society in January, 1893, mentioned these washing-powders as a means to kill caterpillars congregating in clusters, as the worm of the gipsy-moth, tent-caterpillar, army-worm, etc. His formula for making the solution is as follows: Dissolve one pound of the powder in a little water, and then add six gallons more water. Spray directly upon the cluster of worms, but do not spray tender foliage with it. For plant-lice, I think the solution can be made much weaker and yet be effective in destroying the lice. Cabbage leaves, owing to their waxy coating, which makes them shed water like a duck, are not easily injured by such applications.

I still should mention that my friend, Prof. E. S. Goff, of the Wisconsin experiment station, has devised a pump for spraying a mixture of water and kerosene, thus relieving us of the trouble of having



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J. J. H. GREGORY & SON, - - - Marblehead, Mass.

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to make the emulsion. It is described and illustrated in the last report of the Wisconsin station. With it, I think, lice on plants can be destroyed easily, cheaply and safely.

A much more formidable enemy than either plant-lice or green worm we have in the cabbage-maggot. This destroys a large part of our cabbages, cauliflowers, radishes, etc., every year, and I do not yet see a sure way to prevent all injury from this source, except we take unusual pains. Probably by daily examinations of the stems of every plant, while young and for a period of perhaps a week or two, rubbing over the stems with the fingers for the purpose of mashing and removing the eggs, or by daily washings or sprayings of the stems with strong lime-water, potash solutions, or tobacco tea, we may succeed in preventing injury from this source. But this method requires much time, and therefore is expensive.

Mr. Goff again comes to our aid with a new device to prevent the fly from depositing its eggs upon the stalks of the plants. It consists of pieces of tarred paper, which may be of a somewhat thinner grade than ordinary roofing-felt, cut into hexagonal pieces of about two and one half inches in diameter, with a slit from one angle to the center, where are short, star-shaped cuts to permit of its adjustment about the stem of the plant on the surface of the ground. In other words, Mr. Goff surrounds the plant, at the surface of the ground, with a collar of tarred paper. This method, Mr. Goff says, is effectual, cheap and of easy application. Mr. Goff also has constructed a simple punch, by means of which these pieces can be quickly cut out of the sheet without waste of time and material. I can see nothing to prevent the home gardener from trying this plan with his few dozen cabbage and cauliflower plants.

FERTILIZERS FOR VEGETABLES AND FRUITS.—Some of our best fruit growers and experts, among them D. S. Willard, of Geneva, N. Y., J. H. Hale, of Glastonbury, Conn., as also Prof. Roberts, of Cornell university, in discussing the question of "fertilizers for fruits," were very emphatic in warning against the excessive use of nitrogenous fertilizers, especially of fresh yard manures, for orchard and small fruits. These crops, they say, need mineral plant-foods more than nitrogen. Wood ashes in combination with bone or other forms of phosphoric acid are especially recommended. Hale uses bone and muriate of potash (or kainite in place of the latter) in heavy doses. "You can't paint a red cheek on a peach without potash," he says. Among domestic manures, wood ashes, even if leached, must always stand in the front rank as a fertilizer for fruits. The leached ashes may be put on in very heavy applications, even of several hundred bushels per acre, and they furnish plant-food in just about the right proportions for these crops, although it would do no harm, and perhaps some good, to apply a small quantity of potash besides, say a hundred pounds of muriate or twice that amount of kainite, preferably in the fall.

Unleached wood ashes may be used at the rate of twenty to fifty bushels per acre; but a few hundred pounds of bone-meal or acid phosphate (dissolved bone or dissolved rock) should be given with it.

My neighbor who raises those splendid crops of Bartlett pears uses nothing but well-composted cow manure, and this in heavy rations. His success shows that the general rule as stated by Messrs. Willard, Hale, Prof. Roberts, etc., is not without exception; and that nitrogenous manures sometimes give excellent results even on fruit crops. Still I believe the rule is a good and safe one.

But while mineral manures alone may give good fruit crops, we want nitrogenous fertilizers in the vegetable garden. Good compost, under average conditions, is yet the most desirable and usually most effective manure for garden crops. We need not be afraid of using nitrogen too liberally, if we also apply minerals, especially phosphoric acid in abundance. My rule is to fill the ground chuck-full of good compost, which, of course, must be reasonably free from weed seeds. Chemical manures are with me only a supplementary application, although under some circumstances I could and would rely on them almost exclusively to make a crop. But I believe in plenty of nitrogen for the garden, to such an extent, even, that I seldom fail to apply it additionally in plain forms, like sulphate of ammonia or nitrate of soda. Plenty of nitrogen is the key-note of success in gardening. **JOSEPH.**

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SPRAYING GRAPES.

A close observer, by the aid of a microscope, might easily have seen mildew on the leaves of the Delawares when they were not larger than a silver dollar. When the leaves were of this size I commenced spraying them and continued doing so at intervals of twelve or fifteen days until the latter part of July—spraying five times in all.

The Coucords were sprayed but twice. I used the Bordeaux mixture the first three times on the Delawares and the first time on the Coucords. For the other sprayings I used the ammoniacal solution of carbonate of copper. Several other varieties were treated the same as the Coucords, but it is my opinion that most of them would have been free from the brown-rot if they had been sprayed oftener.

To prepare the Bordeaux mixture I dissolved six pounds of sulphate of copper in five gallons of water and slaked four or five pounds of lime in enough water to make a thick whitewash. In order to allow the copper sulphate to dissolve and the lime to slake, I did this a few hours before mixing the two. I put the copper solution in a fifty-gallon kerosene-barrel and strained the whitewash into it, through a coarse sack, and added enough water to fill the barrel.

I made the ammoniacal solution by dissolving five ounces of carbonate of copper in three pints of ammonia and stirring it into fifty gallons of water.

The Coucords and Delawares each took fifty gallons the first time and one hundred gallons each time thereafter.

I used an Excelsior knapsack sprayer, which worked very well. It cost \$12.50. The cost of spraying nine hundred Delaware vines five times and twelve hundred Coucords twice, is shown below:

On the Delawares I used:

First time, 6 lbs. copper sulphate @ 7c.....	\$ 42
Second and third times, 24 lbs. copper sulphate @ 7c.....	1 68
Fourth and fifth times, 20 oz. carbonate of copper @ 4c.....	80
Ammonia @ 25c.....	3 00
Total cost of material for Delawares.....	\$ 5 90

These vines yielded 6,500 pounds of grapes, or an average of 7.5-9 pounds per vine.

With the Coucords the account stood as follows:

First time, 6 lbs. sulphate of copper @ 7c.....	\$ 42
Second time, 10 oz. carbonate of copper @ 4c.....	40
6 pts. ammonia @ 25c.....	1 50
Total cost of material for Coucords.....	\$ 2 32

Total cost of material for Delawares and Coucords.....	\$ 8 22
Total cost of labor—4½ days—@ \$1.....	4 50
Total cost of labor and material for spraying.....	\$12 72

Excelsior, Minn. F. F. PRATT.

It should be known in connection with the above that in adjoining vineyards that were not sprayed the crop of Delawares was a total loss, while Coucords suffered severely from rot.—From a letter in Bulletin No. 25, Minnesota-Experiment Station.

THE PEACH ORCHARD.

In planting peach-trees care should be taken to give the orchard every advantage to secure a crop and to make the fruit of the best quality and appearance, for the peach is a paying crop when it hits the market just right. The best situation is an elevated one, as there is less danger of frost. The best soil is one of a warm, quick nature; it should be naturally rich or made so by manure. The peach-tree requires richer soil than the apple, I think; a soil with a large share of potash in it is one of the best. I notice orchards on hillsides do best even though the soil may not be so good. The land should slope to the north rather than south, the brow of the hill being a better location than a steep northern or southern slope. When on a southern exposure a few warm days may bring out the fruit buds, and they be killed by a cold snap. I have observed that orchards on high northern slopes seldom fail. Some may claim to have a richer fruit from southern aspects, but the orchards on the north do not fail to have fruit of good quality also.

The culture of the peach is quite simple, but it must be thorough and constant; neither grass nor grains should be allowed to grow among them. Garden crops, I find, may be grown in the orchard even with a benefit, as they are heavily manured and well worked. The finest peach orchard and the finest fruit I ever saw was planted on a rich, warm soil, cultivated and manured every year the same as the corn crop, and kept well pruned. In selecting trees, I much prefer a small tree to a large one. I have known some growers to select the largest, thinking thereby to get fruit earlier; but I believe such persons make a serious mistake in so doing. A tree should be kept headed in, thinned and well balanced over the trunk.

Kentucky.

THOS. D. BAIRD.

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Strawberry-plants Wanted.—Mrs. R. E. K., — Write to some of the concerns advertising strawberry-plants in this issue of FARM AND FIRESIDE, and ask them for their circulars.

Pine Leaves for Mulching Strawberries.—F. W. S., Docosta, N. J. They answer very well for a mulch, and do not cause any trouble, for of those gathered, more than three fourths will be so well decayed as to make a very excellent manure in a short time.

Cranberry Culture.—Mrs. E. S., Remersburg, Pa. To give you a full treatise on the growing of cranberries is beyond the limits of these columns. But if you will put your inquiries into the form of specific questions I shall be glad to answer them. For a treatise on cranberries, see reply to J. W. H. in FARM AND FIRESIDE of January 15th.

Early Market Grape—Best Time to Prune Grape-vines.—H. T. K., Duncan, Conn. If Moore's Early is productive in your location, it is the most desirable early variety I know of. For an early red grape perhaps the Wyoming Red would be the most profitable of any, but it is not of best quality. In some locations the Cottage is very profitable. —In the autumn after the foliage has fallen, but they may be safely pruned at any time before growth starts in the spring.

Rooting Grape Cuttings—Winter Apples for Tennessee—Wilder Pear.—V. S. G., Upchurch, Tenn., writes: "Give directions for obtaining roots on grape-cuttings. —What are the best varieties of winter apples for this section?—Would the Wilder Early pear be a success down here?"

REPLY:—See recent numbers of FARM AND FIRESIDE. —Shockley, Winesap, Ben Davis, McAfee, Ortleby. —Do not know; think it worth trying in a small way, but am afraid it will blight.

Early Prolific Raspberry.—J. S., Reading, Pa., writes: "Will some of your readers who have tried Thompson's Early Prolific red raspberry give their experience with it? I had a few plants which bore last summer, and believe it to be Crimson Beauty under a new name. If it is not Crimson Beauty, it is no better and of no value for market, but will do for home use."

[We would like to hear from our readers who have had experience with this raspberry. My notes on it seem to show that it must take low rank as a market berry.—S. B. G.]

Cottonwood Cuttings.—A. S., Alliance, Neb., writes: "When is the best time to gather cottonwood cuttings? What length should they be, and how kept until planting-time? How would it do to plant them in winter when the ground is not frozen?"

REPLY:—The best time is in the fall, but they will do nearly as well made up at any time during mild days in winter or before growth starts in the spring. They may be made of almost any size or length, but I prefer cuttings ten or twelve inches long and about three quarters of an inch in diameter. They may be kept in moist saw-dust or chaff or buried in the ground. They are best bundled and tied, fifty cuttings in a bundle. Yes, providing they were heavily mulched after setting and were gone over in the spring, and firmed in if loose. Put them in at least eight inches deep.

To Break Hard-pan.—C. G. G., Weiner, Ark., writes: "What is the best way to break up hard-pan? The hard-pan is two feet below the surface and from three to four feet in thickness. I want to plant fruit-trees."

REPLY:—The best thing to break up the subsoil is a subsoil plow. It only loosens the subsoil and does not turn it over. If the work is thoroughly done it may be loosened to the depth of two feet. If not all done at one plowing, go twice with the subsoiler in each furrow, following an ordinary plow. After being subsoiled or broken up in any other way, the hard-pan may after some time become solid again; but if at once planted to clover or some other deep-rooting crop the decaying roots will so change the character of the subsoil that it will not be liable to pack together. It is very important that stiff clays be drained, and this practice alone will often entirely change their character and make them porous.

Apple Seedlings—Grafting—Grape Cuttings.—L. W., Doniphan county, Kan. If the seeds are wintered over mixed with sand or in some other material that will prevent their becoming dry, they will germinate easily in the spring. My plan is to winter over as said above. In the spring I keep the seed from getting very wet and as cold as practicable until about two weeks before I am ready to use it, when it is brought into a warm room or greenhouse. It soon starts, and is sown when the shells of most of the seeds are split open. In sowing, cover about one inch deep with mellow, light soil.—For grafting apples, see article in FARM AND FIRESIDE of January 1st. —The best way to start grape cuttings is to make them up in the autumn, tie in small bundles and heel in outside with the butts up; cover with about twelve inches of earth. Early in spring remove all but three inches of the soil from over the butts and cover with one foot of hot manure. In a few weeks the cuttings will be calloused, when they should be planted in rich, warm soil six inches deep. They should never be planted out until they have calloused a little. Instead of manure, some growers put a frame covered with glass over the cuttings, which confines the heat of the sun, but the principle is the same in either case.

ROYAL CHURCH RED RASPBERRY, Crosby Peach, Elberta Peach; Timbrell Strawberry, also Greenville, Princess, Jay Gould, Edgar Queen Strawberry plants; Wilder, Idaho, Vermont Beauty, Bartlett Seekle, Lincoln Coreless and other pear trees. American Blush, Banana, Lord Nelson, Rochester Sweet, Fanny and other apple trees; Lancashire Lad gooseberry; Royal Apricot, Paw Paw, Nuts, Buffalo Berry, Tree Cranberry, and Minnewaska blackberry; Christmas Rose, etc., are our leaders for Spring, 1893. Standard Pears, \$15 per 100; Standard Apples, \$10 per 100. Send for new Catalogue and Guide. Green's Nursery Co., Rochester, N. Y.

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1838. 55 YEARS. 300 ACRES. 1893. NUT TREES AND NEW PEARS Parry's Giant, Pedigree Japan Mammoth, Paragon and other Chestnuts. Japan Persian, French and English Walnuts; Pecans, Almond and Filberts. Lincoln Coreless Pear—very large and very late. Seveva—large, handsome and immediately after Bartlett. Japan Golden Russet. Vermont Beauty and Idaho, in collection at reduced rates. Blenheim Longspur, Hardy Oranges, Wine-berries and other valuable novelties. Shade Trees for Lawn or Street; Ornamental Shrubs, Vines, etc. Grape Vines, Small Fruit plants. Immense stock Maples and Poplars for street planting. Illustrated descriptive catalogue free. **POMONA NURSERIES, PARRY, NEW JERSEY.**

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Our Farm.

EXTRACTS FROM CORRESPONDENCE.

FROM OREGON.—We have a remarkably rich country, with beautiful prairies and plenty of timber, which is settling up rapidly with a good class of eastern people. Fruit growing is becoming one of our important industries. The tenth United States census report shows that this is the most healthful state in the Union, the death rate being less than that in any other. Salem, the capital of the state, is a beautiful and healthy city of about 16,000 population, and is growing rapidly. H. W. C. Salem, Oregon.

FROM FLORIDA.—Lee county, with a population of 2,000 people, has sold \$8,000 worth of oranges this year—about half of her crop. No country in the world can produce a better orange or lemon. In the future this county will send 1,000,000 boxes to the North. The mercury was down to 40 degrees one morning this winter. Grass, fruits and vegetables are doing nicely. Health is good. There were only twelve deaths in the county during the past year. We challenge the world for a better showing of good health. L. C. W. Fort Myers, Fla.

FROM KANSAS.—I would like to have bulletin No. 6 from New Mexico station, as that touches on the subjects that we are interested in here. I have noticed articles in your paper advising the cutting down of the wheat acreage, but they do not give any substitutes. Comanche county has been settled eight years by farmers from every part of the Union, and wheat and sorghum seem to be the only sure crops we can raise here. It seems as though it is wheat or nothing with us, but at the present prices it is not paying, unless there is an extra good yield. I know of one field that was damaged some by hail and turned out thirty-four bushels per acre, but a good many fields did not any more than pay the expense of cutting and threshing; so there is only the straw left for the work, and that is of no use to a good many of us who have not cattle to eat it. Those who have seem to be making a little money. It was so dry here this fall that I do not think as much was sown this fall. This is a good stock country, but cattle must be fed here some during the winter. O. E. L. Coldwater, Kan.

FROM NEBRASKA.—It may please some of the readers of this paper to hear from this part of the "Great American desert." To those in the East who wish a good home, I will say that no better farming land can be found in any state than in central Nebraska. We can grow any crops of the temperate zone, and when we state as a fact that the yield of wheat last fall reached as high as fifty-five bushels per acre, one will be astonished. My wheat tested sixty-six pounds per bushel. The coming season there will be more wheat sown than ever, and as we have found a very hardy variety of wheat to sow, we are as sure of a crop as we are of corn or oats. Corn will bring us \$12 to \$15 per acre, and oats the same. If eastern men wish a good home, they had better come now. Land is changing hands rapidly, for there are a class of roamers who are never satisfied with a good thing, and will sell out and travel to some other place. Good farms are selling at \$25 to \$35 per acre, according to the improvements. One grand, good thing about Nebraska is the good roads—the best in the world. There is no mud and no dust; after an all-day rain we will find dry roads the next morning. The present winter has been very mild thus far—six to eight inches of snow, the thermometer averaging per week for January about twenty degrees above zero.

Central City, Neb.

M. M. H.

FROM WASHINGTON.—Many small towns are springing up in this northwestern country, where good business men with small capital can soon become rich. Of course, their gains would not be as rapid as with the lucky ones in the large cities who know when to "unload" during a "boom." Mines are to be developed, ranches can be bought, sawmills are needed, dairies are needed, and there are many other opportunities to be seized by business men who mean business. Speaking of dairies, let me tell some good creameryman that we have here at Springdale one of the finest locations in the country for a good creamery. The hills for miles on every side are covered, from early spring to late autumn, with fine, free pasturage of wild pea, bunchgrass and blue-joint, knee high to stock. Feeding-time usually lasts from the middle of December to the first of March, and stock can be wintered on timothy, red-top and clover for \$2 or \$3 a month. There are few good butter makers here. Butter is never less than 18 cents per pound, and ranges from that to 50 cents. Within a short distance of this place there are from three hundred to four hundred average dairy cows. Much stock is raised in the Colville valley, and this number can speedily be doubled. We are on the line of the S. F. & N. railroad, forty-one miles from Spokane City. All the good butter in this country is shipped here from California, and the supply is often short of the demand. L. E. B. Springdale, Wash.

FROM ILLINOIS.—Vermilion is one of the most prosperous counties in the state. The county and its county-seat, Danville, have been on a boom for some years. We grow all kinds of grain and vegetables. Apples and peaches are not sure crops. Blackberries, raspberries and strawberries do well. Corn is king in this state. Potatoes do remarkably well; also turnips. Land is going up very fast in price. The canning company has bought 740 acres close to town; one tract of 400 acres for \$80 per acre, and another tract at \$75 per acre. Corn is selling for 36 cents and oats for 30 cents per bushel; hogs, \$7.50 per hundred weight; butter, 20 cents per pound; eggs, 30 cents per dozen; potatoes, 80 cents per bushel; bay, \$8 per ton. We have had a very cold winter. Good roads give the farmers a chance to get their full bins of corn and oats to market. We have a good college, seven churches, water-works and electric-light plant. The two canning factories in this city have already sold their next season's pack of sweet corn, for which they will receive about \$380,000. This will make four hundred car-loads, or twenty trains of twenty cars each. This is more sweet corn than will be packed by any other community in the world. It will require the product of about five thousand acres of land. They have a silo for the cobs and husks, and are feeding four hundred head of cattle this winter. A. J. McW. Hoopston, Ill.

FROM ARKANSAS.—Sebastian county contains 364,800 acres of land, about equally divided into mountain and high ridge, prairie and timbered uplands, and river and creek bottom lands. The latter compare favorably with the richest and best lands in the world. The prairies are all gently rolling, and though they are not classed as rich as the prairies in some other states, they produce fine crops of wheat, rye, oats, millet and vegetables, and are said to stand the drouth better than the timbered uplands. The last named are evidently preferred by our farmers, as the largest proportion of farms are situated on these lands. Nature has done much for this county in the way of rich soil, salubrious climate, beautiful scenery, valuable minerals—principally coal and iron—and building stone. The river bottom land is covered with a heavy growth of cottonwood, burr oak, red oak, hickory, pecan and walnut. The cottonwood often measures fifteen to twenty feet in circumference three feet from the ground. The growth on the uplands is principally red oak, white oak, post oak and hickory. The prairies are dotted here and there by beautiful little groves of the various kinds of oak, which at a glance look as though they might have been planted there by the hand of man, so neat and uniform are they in appearance. Sugar Loaf and Poleau mountains, in the western part of the county, are covered with pine, which is now being sawed into lumber. The products of the county are cotton, corn, oats, wheat, rye, sweet and Irish potatoes. Cotton yields one half to one bale to the acre; corn, 20 to 75 bushels; wheat and rye, 10 to 40 bushels; Irish potatoes, 100 to 200 bushels; sweet potatoes, 100 to 250 bushels. Of course, much depends here, as elsewhere, upon the quality of the land, seasons and cultivation. The second crop of Irish potatoes are now successfully raised here upon the same land that produced the first; the first crop matures in June and furnishes seed for the second, which matures by the middle of October. The fruits are apples, peaches, pears, plums, cherries, gooseberries, strawberries, grapes, etc. The peach crop is always abundant, and the fruit fine in size and flavor. The finest pears that I have ever seen grow here; it seems to be the home of the LeConte and Kieffer pears. Plums are never-failing, and do not seem to be bothered with the curculio. There are only a few varieties of apples that do well; the Shockley, a native of North Carolina I think, Early Harvest and a few kinds that ripen in May or June. All the rest tried rot on the trees and never really get ripe. C. T. Creseent, Ark.

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BY THE ILLINOIS CENTRAL R. R. CO., AT LOW PRICES AND ON EASY TERMS, IN SOUTHERN ILLINOIS.

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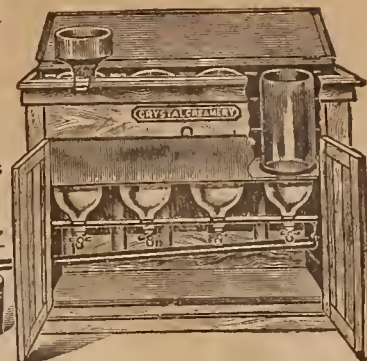
COLONY IN CALIFORNIA Well irrigated lands for sale in these Colonies for \$25, \$10, \$20, \$30, Per Acre. Easy terms. Send for maps and circulars. NATIONAL HOMESTEAD CO., Grand Pacific Hotel Exchange, Room 10, CHICAGO, ILL.

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CREAM WITH OR WITHOUT ICE.

Practicable, Durable, Simple, Perfect, Profitable. Non-rusting, Non-corrosive, no Leaking. Sediment removed by bottom skimming. No dipping or slopping of milk or cream. Glass cans give more and better cream and butter. A perfect Separator for small dairies. Send for catalogues to Agents wanted. Crystal Creamery Co., Cut prices to first purchaser. 40 Concord Street, Lansing, Mich.

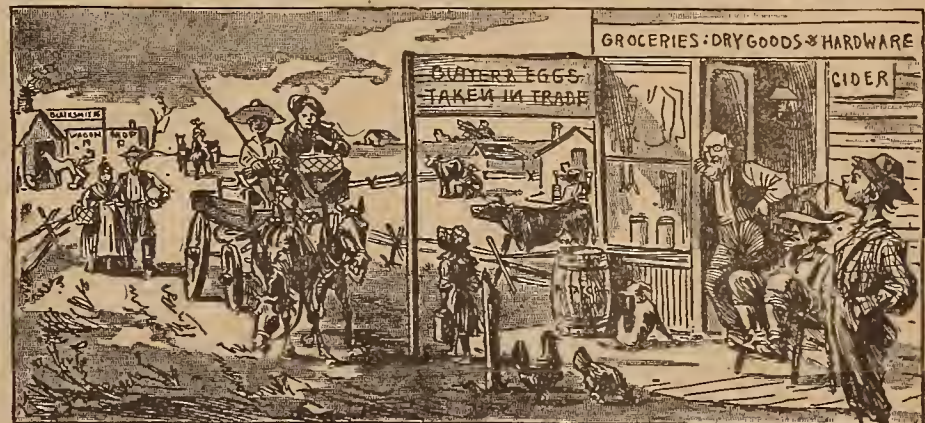


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Our New Book for 1893 gives a complete description of each machine, with illustrations. It is a book of many lessons in practical farming. Every farmer who wishes to decrease his labor and increase his profits, should have it. We send it Free. Address

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Farming is a grand success. We have a Butter and Cheese Factory that was built five years ago and has made our community what it is now. Should you need a Butter and Cheese Factory in your community correspond with DAVIS & RANKIN BLDG. & MFG. CO., 240-252 W. LAKE ST., CHICAGO. Also Manufacturers of Dairy Machinery and Supplies.

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require so much fertilizing that farms and gardens Won't Produce a Profit.

The rich, loamy soil of Michigan Farms produces a fine crop without this expense. The near markets, general healthfulness of climate and freedom from cyclones, blizzards, together with good society, churches, etc., make Michigan Farms the best in the world. Write to me and I will tell you how to get the best farms on long time; low rate of interest.

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If you have five or more cows, a "BABY" cannot but prove a most profitable and pleasing investment. Its use means more and better butter, warm skim-milk for feeding purposes, saving of ice, time, labor, and plant, and better satisfaction with dairying generally. Send for new "BABY" catalogue, giving actual experiences of well-known users and endorsement of highest dairy authorities in every section, styles, capacities, prices, and complete information.

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Invested in PIERRE now will bring you \$1,000 inside of a few years. Good residence lots, within a few minutes' walk of the State capital building, can be had for \$100 each. Write us for maps, circulars, etc. STEARNS & ROWS, Pierre, S. Dakota.

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300 Farms. Two Fruit farms at a great bargain. Circulars Free. J. H. Bristol, Martinsburg, West Va.

\$700 will buy 160 acres of rich, level prairie land in the fertile valley of the James River in South Dakota. Only \$200 cash required. This is a rare chance. Write quick if you want it, to C. C. Fletcher, Aberdeen, S. D.

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Our Farm.

THE POULTRY YARD.

Conducted by P. H. Jacobs, Hammondon, New Jersey.

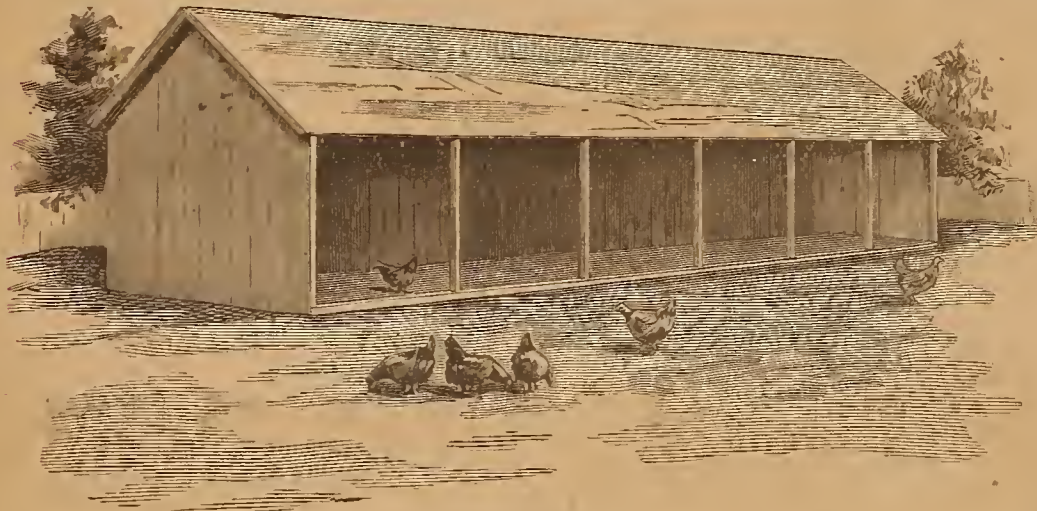
THE BREEDS TO SELECT.

As the spring is the time for buying eggs of the pure breeds, it will not be out of place to give a few words of advice to the new readers and to those who are not familiar with the breeds. First, have some object in view. If you prefer a breed that lays a great many eggs, do not expect to get good table qualities in the breed at the same time. If you desire a choice table fowl, do not expect great layers among such.

If you have no range, and are compelled to keep your birds in confinement, you should select breeds that are contented in confinement, and which cannot fly over a fence, as the Brahmas and Cochins. But do not overfeed them, but make them scratch and work in litter for all they receive.

The non-sitting breeds lay eggs that are pure white in color. They do not sit unless made excessively fat by high feeding. They can fly over a fence, and thrive best on a range. They are the Leghorns, Hamburgs, Houdans, Black Spanish, Minorcas, Polish and a few others. The Minorcas and Houdans are larger than the others, and the latter is also a fine table fowl, but the hens do not lay heavily in water.

The Dorkings, Indian Games and the Pit Games are the best breeds for the table, but the chicks are tender. The hens are fair layers, but do not equal some other breeds.



ROOSTING-SHED

For hardiness, market and what may be termed "general purposes," the Brahmas, Cochins, Wyandottes and Plymouth Rocks are considered equal to any. The two latter do well on the range (and in fact, all breeds do best on the range), but they also endure confinement. They are not the best laying breeds, nor the best fowls for the table, but they will probably give as large a profit as any other breeds when poultry, eggs and broilers are produced.

DISEASES OF THE THROAT.

Hoarse breathing, rattling in the throat, choking, yellowish substance in the throat, resembling diphtheria in children, and sometimes accompanied with swollen eyes, may be combined as one difficulty. It is usually due to a draft from some source, and the ventilator is more at fault than anything else. The best remedy is to swab the throat in the morning (using a feather) with a mixture of one part spirits of turpentine and three parts of sweet-oil, at the same time injecting a few drops of the mixture in each nostril. At night sprinkle a pinch of chlorate of potash down the throat. Put ten grains of powdered permanganate of potash in each quart of the drinking-water, and keep the birds warm. The handling of the birds is laborious, hence all sick ones should be removed from the others.

LEG WEAKNESS.

There are many causes for leg weakness. When young cockerels fall on their knees, eat well and seem to have no other ailment, it is due to heavy feeding, and they will recover. Jumping from a high roost, especially if the birds are fat, will cause the difficulty, and too much sulphur in the food in damp weather will cause rheumatism. If some of the hens droop, cannot stand on their legs and gradually become worse, they should be removed from the male without delay, and kept away from him until they recover. Damp quarters will cause leg weakness in fowls, and especially with ducks and geese. Sore feet are caused by frosting during severely cold weather, and

also by the birds jumping daily on hard substances when leaving the roosts. When young chicks have leg weakness, it is due usually to lack of warmth and the rapid production of feathers.

RAPID FEATHERING OF CHICKS.

Young chicks are constantly producing feathers, and when they begin to lose their down and shoot forth the tiny tail and wing feathers, it is a weakening process to them. For that reason, more chicks seem to die when they are three or four months old than when younger. The remedy is to keep them warm and feed them every two hours on a variety of food, consisting of anything that they will eat, but once a day a little lean meat, cooked, and bone-meal will be found highly beneficial to them.

BULKY FOOD FOR DUCKS.

Ducks should be laying now, and they will need something more than grain. They should have animal food, such as ground meat and bone, at least once a day. The most important is bulky food. Give boiled turnips or potatoes, or clover hay, cut fine and scalded. They require plenty of water for drinking, and it should be fresh and clean.

ROOSTING-SHED.

There are some who believe that their fowls should approach as near an outdoor life as possible, and that even the roosting on tree limbs is sometimes better than a close poultry-house. We give, as an illustration in this issue, a roosting-shed (not a poultry-house), which is well adapted for a large flock of turkeys in winter, as the

roosts may be placed high under the peak, and it is also an excellent arrangement for hens in summer, for roosting.

If one portion near the end be closed, and a window attached, the house becomes a covered yard, open to the south. The shed may be of any size, and as no boards are required on the front and no windows are necessary, the cost of the shed is but very little. As a location for hens with chicks early in spring, it will serve admirably. It is not only a wind-break, but a protection against snows and rains, and where the climate is not too cold it will answer for hens in winter as well as for turkeys.

DORKINGS AND CROSSES.

It is worth the experiment of trying a cross of the Dorking male with Wyandotte hens, in order to produce a few fine table fowls for your own use. The pullets from the cross may be retained, and next season they may be mated with an Indian Game male. To extend the cross, the third year use a Houdan male, and the fourth year come back to the Dorking again. These crosses do not produce the best laying fowls, but they are the best of all for the table, and new blood will be added each year. The chicks will not be as hardy as those of the Plymouth Rock or Asiatic breeds, and for that reason there might be unsatisfactory results in raising them for market, but for superb table fowls for your own use, there will be found nothing superior to these crosses.

ONE BREED ONLY.

In keeping pure breeds, begin with one breed only, learn its characteristics and points of excellence, and you will then be better able to attempt experiments with the second. Each breed is adapted for some special purpose, and there is much to learn with only one kind. Aim to have the best, however, for one of the pleasures in the keeping of pure breeds is to excel with the breed. Go to the shows, exhibit your stock and endeavor to take some of the premiums. This will stimulate to greater effort, and to securing better stock, if possible.

EARLY DEVELOPMENT.

Some breeds develop early, while others reach maturity slowly. As soon as the cockerels have their combs full and tall, and the sickle feathers of the tails begin to show, they will make but little more growth, and if size is desired, such cockerels, unless well grown, will cause disappointment. It is the long-legged, overgrown chicks, with no sign of combs or wattles, that make the large cocks, and they grow on until fall, when they seem to suddenly develop.

CROWDING YOUNG CHICKS.

Do not try to make one hen raise the number of chicks that two hens should care for. Giving the broods of several hens to one hen, in order to make the one hen do what the others should do, may save the work of the hens, but it will be at the cost of a loss of chicks, especially in cold weather, as a dozen chicks are all that a single hen can properly hover.

TREES IN THE YARD.

If you contemplate planting trees this spring, put a few in the poultry-yard for shade. The peach or plum seems to do well in the poultry-yard, with attention, and such trees soon afford shade. It will take up no more room in the yard to have both fruit and poultry than to have poultry only, and the yards should be utilized to their fullest extent.

CORRESPONDENCE.

A GOOD RECORD.—Here is my account of eggs for 1892: I had three dozen hens, and moved twice (once in March and once in April), fourteen miles the first time and ten miles the second. The hens laid in January, 161 eggs; February, 227; March, 303; April, 726; May, 782; June, 476; July, 251; August, 162; September, 195; October, 283; November, 85; and December, 81. Total for the year, 4,037 eggs, or 336 dozen. That would be 112 eggs for each hen. I sold \$28 worth of eggs, and used some, and received 80 cents for each hen that I sold. I hatched about 50 chicks, and sold about two dozen.

Piedmont, Kansas. MRS. M. W. H.

INQUIRIES.

Broody Hens.—E. E. B., Asotin, Wash., writes: "What causes hens to become broody at this season? My hens are mostly Black Spanish and Leghorns, young, and have free range, bone, wheat, rye and boiled potatoes, seem healthy, are not fat, but do not lay." REPLY:—You are mistaken about the hens not being fat. Whenever the non-sitting breeds (Leghorns and Black Spanish) seem healthy, do not lay and become broody, it is an indication that they are fat and overfed.

Using a Potato-field.—F. H. H., Augusta, Ohio, writes: "(1) Will chickens do well if confined to two and one half acres of ground, two acres to be in potatoes, with half an acre in grass for pasture? (2) Are potato-bugs injurious to fowls? (3) Will cabbage take the place of grass for poultry in winter? (4) Are poultry droppings beneficial if distributed in the rows of potatoes as a fertilizer?"

REPLY:—(1) The potato-field may be used, but Paris green will kill fowls if they eat it. (2) The soft larvae may be eaten, but the adult beetles may get into the crops alive and kill the fowls. (3) It is an excellent substitute. (4) They are.

Lameness of Hens.—M. F. H., Zurich, N. Y., writes: "My hens are taken, out at a time, with lameness, the legs gradually becoming useless. The males are never affected. They are well fed, look well, eat their food readily, the small Leghorns suffering most. This is the third season this has happened." REPLY:—Remove the hens from the male as soon as they show the first indication of lameness, as he is the cause of the difficulty. Keep the hens on straw until they recover.

Roup in Turkeys.—"My turkeys have sores on their heads, go blind, also have sores in their mouths, cannot eat, live two or three weeks and die." REPLY:—It is the roup, due to exposure to drafts and dampness. There is no cure. Add a teaspoonful of chlorate of potash to each quart of the drinking-water. Also use the remedy suggested to G. W. S., this department.

Choking.—Mrs. G. W. S., Napa City, Cal., writes: "My hens wheeze, gasp for breath, sneeze and choke to death." REPLY:—Due to drafts, and similar to croup. Give ten drops, once a day, of a mixture of one part spirits of turpentine and three parts sweet-oil, and force a drop in each nostril with a sewing-machine oil-can.

Sunflower Seed.—M. D., Severn Bridge, Canada, writes: "Are sunflower seeds good for hens, and how should they be fed?" REPLY:—They are excellent. Allow one quart to twenty hens, three times a week.

Buckwheat.—B. E. P., Wickliffe, Ohio, writes: "Is buckwheat suitable for poultry, and how should it be given?" REPLY:—It is excellent. Feed in the same manner as with other grain.

Scaly Legs.—Mrs. E. S., Rimersburg, Pa., writes: "What should I do for hens that have scaly legs?" REPLY:—Anoint the shanks twice a week with a mixture of one part kerosene and four parts lard.

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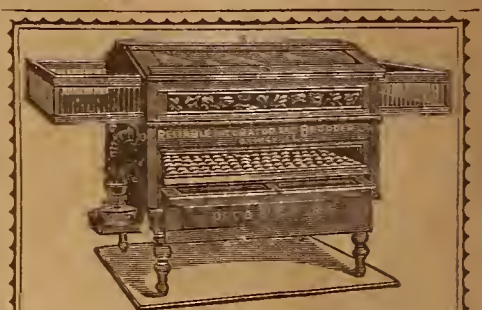
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Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the inquirer should accompany each query in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Bean-thresher Wanted.—J. W. B., Councilville, Iowa. Bean-threshers are made by Chas. H. Bidwell, Albion, N. Y.

Cotton.—L., Oakdale, Ill., writes: "Which is the largest cotton-growing state in the Union?"
REPLY:—Texas.

Old Coins.—J. N., Markleville, Pa. Send 25 cents to this office for the "Reliable Coin and Stamp Guide," which gives description and value of rare coins and stamps.

Sweet Clover.—W. L. B., Caspar, Cal. You can obtain the seed of sweet or Bokhara clover from the seedsmen who advertise in this paper. Send to them for catalogues.

Bean-weevil.—W. W. W., Brock, Mo. The sample beans you sent are infested with bean-weevils. For best method of destroying the weevils and saving the beans for food or seed, see FARM AND FIRESIDE, December 1, 1892.

German Millet.—H. F. D., Setauket, N. Y. For hay, millet can be sown broadcast, one half bushel per acre, from May 1st to August 1st. Shortly after corn-planting is a good time. German millet is listed in some seed catalogues at \$1.50 per bushel.

Crops for Green Manuring.—W. M. K., Kenesaw, Neb. Rye sown at the time of last cultivation of corn can be turned under the following spring, late in April or early in May, followed by another crop of corn. Buckwheat sown in June can be turned under for winter wheat.

Barn-yard Manure.—V. A. S., Abilene, Texas, writes: "How would it do to apply manure fresh from the yard? I have two large pens of it, and it has gone through a heat. Does that ruin it?"

REPLY:—You may apply it fresh from the stable. The heating has damaged it; very much, probably.

Hay Measurement.—J. H. M., New Baltimore, Mich., writes: "Give the rule to find the contents, in tons, of a stack of hay."

REPLY:—If the stack is small, divide the number of cubic feet it contains by 512. If it is large, divide the number of cubic feet by 420. The quotient will be the number of tons. The rule is not a very reliable one, as few stacks are alike.

Purple Husk Tomato.—Mrs. D. M. A., Connecticut, writes: "Where can I get seed of the Purple Husk tomato?"

REPLY BY JOSEPH:—The inquirer probably means the plant introduced under the name Cape gooseberry (Physalis Peruviana), which resembles the cherry tomato or alkekengi, a plant often seen in kitchen gardens, and which, once planted, usually reproduces itself year after year, as long as people do not pull them all up. I believe Samuel Wilson, of Mechanicsburg, Pa., catalogues it. It has no particular value as a fruit.

Wood Ashes for Onions.—J. I. T., Pennsylvania, writes: "Are wood ashes good for growing onions? If so, how should they be applied to the ground for most benefit?"

REPLY BY JOSEPH:—Wood ashes are a good supplementary fertilizer for the onion-patch. When the soil is well manured with compost, or otherwise filled with nitrogenous matter, broadcast applications of ashes, well harrowed into the ground before planting, come handy, and not only furnish plenty of potash, with some phosphoric acid, but also serve a good purpose as a preventive of injury from drouth.

Gas-lime.—J. D., Ottawa, Canada, writes: "Has gas-lime any effect on insect pests? Is it beneficial as a manure after laying in the ground for a year or two?"

REPLY BY JOSEPH:—Fresh gas-lime may slightly act as a repellent for some insects, but it is not usually recommended, especially as it is apt to injure the crops also. It is not a manure. When fresh it consists partly of sulphate of lime (gypsum, plaster), and therefore may be serviceable in "fixing" ammonia. When old, it is nothing more nor less than carbonate of lime, being equal in its effect upon the soil and plant growth to old, air-slaked lime.

Improving Hard Clay Soil.—H. B. K., Bryan, Ohio, writes: "I have twenty acres of rather hard clay soil. What is the best method to farm it to improve the soil? I do not have much capital to buy fertilizers with, and I have no stable manure, only the straw from the crops raised. Does tilling pay on hard clay soil that is somewhat rolling, enough to surface-drain well?"

REPLY:—The probability is that your land needs tile drainage more than anything else. If so, the thing to do is to drain it. After that it will not be difficult to rapidly improve it with clover. Make clover one of the principal crops in your system of crop rotation. Of course, the more good barn-yard manure you can apply, the better.

Clover and Alfalfa.—F. M. R., Jamesport, Missouri, writes: "I wish to sow some red clover the coming season. I was told to sow it in the latter part of February and let it alone, and it will do better than to sow it later on and harrow it. Which is the better plan? I wish to sow without other grain. Will it do as well as with grain of some kind as a covering?—I wish to experiment with a little patch of alfalfa. Will it do to sow it the same as red clover, or had it better be sown later on and harrowed in? Is it better to sow it with or without some kind of grain?"

REPLY:—The best stand of clover we ever saw was sown in April on winter wheat that had been harrowed. Usually, earlier sowing is better if the ground is not harrowed. As you are going to sow it alone, we would suggest that you sow it just as soon as you can prepare the ground by harrowing.

It is a little difficult to get a good stand of alfalfa. It should be sown about corn-planting time on ground prepared as for oats. Better sow it alone. The first and second cuttings may be more weeds than alfalfa, but if it gets a good start it will take complete possession in time. Alfalfa requires a deep, porous subsoil. It will not thrive on heavy clay with hard-pan subsoil.

A Straw Barn.—In answer to a query about building stables with baled straw, A. T. H., Farwell, S. D., sends the following: "A staff correspondent of the Rocky Mountain News visited the United States experimental forage farm at Garden City, Kansas, lately, and describes two straw barns that were in use there, as follows: 'The first thing to do is to hale the

straw, then level the ground for a foundation, and lay down two 2x4's and place the first tier of bales on these. Make hard-wood pins, or dowels, eight inches long and one inch square, pointed at both ends. Drive four of these (one in each corner) into the bale half the length of the pin. Lay the second tier, breaking joints as in brick-work, pressing the bales onto the pins, and so on until you have made walls as high as you wish, say eight, ten or twelve feet. Put in door or window frames wherever you want them; these should be made of two-inch plank ten inches wide. On top of the last tier of bales lay planks eight inches wide, and bolt with wooden pins two feet long. On these planks or plates nail the rafters. The roof and gable ends may be boarded and shingled, or boarded with six-inch boards placed ten inches apart and thatched with straw. A barn any size may be built this way. Those at the United States experimental grass and forage station at Garden City are 20x40 feet. One is twelve feet high, with a loft for hay; the other is eight feet high. One has a shingled roof, and the other has a thatched roof and gables. The cost is about one third that of a barn constructed of lumber. These barns are cheap, durable and adapted to the plains country. There should be hundreds of them in the arid regions, as any intelligent or practical farmer can build one at his leisure, and not only utilize the straw, which would otherwise go to waste, but provide the best of shelter for his stock and farm machinery."

VETERINARY.

Conducted by Dr. H. J. Detmers. Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to Dr. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE.—Parties who desire an answer to their inquiries in this column must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Elephantiasis.—J. B. B., Chepachet, R. I. What you complain of is elephantiasis. It is incurable.

Vitiated Appetite.—J. T., Salinas, Cal. Feed your cow with bran mash, clover hay, and other substances rich in phosphates and lime salts.

Periodical Ophthalmia.—C. F. D., Marne, Iowa. What you describe is periodical ophthalmia. See answer given to a question headed "Diseased Eyes," in present issue.

Protective Inoculation Against Swine-plague.—J. O. G., Eden, Ill., and G. W. M., Toronto, Ind. You will find all the information desired in FARM AND FIRESIDE, Nos. 21 and 22, of last year. Space will not allow to reproduce such lengthy articles.

Wants to Kill a Horse.—M. E. G., Sulphur Springs, Ark. If you want to kill a horse, the best and easiest way is with a shotgun at close range, and not with chloroform or with any other poison. Your inquiry arrived four days too late to be answered February 15th.

Copious Discharges from the Nose.—N. McC., Black River Falls, Wis. The copious discharges, very likely, come from the frontal and maxillary sinuses, or from the air-sacs. Study the anatomy of these parts, and you will easily see how it is that large quantities flow off when the head of the horse is lowered.

Emaciation and Vitiated Appetite.—N. W. M., Teneha, Texas. Feed your pony more nutritious food, rich in nitrogenous compounds and in phosphates and lime salts. In other words, feed oats, bran mash, linseed oil-cake, and if it is available, good clover hay and alfalfa. It may be, though, that your pony is already too far gone, and past recovery.

Gives Milk Only From Two Teats.—G. W. T. If the left side of the udder of your cow is soft and without any symptom of inflammation, but does not yield a normal quantity of milk, or much less than the right half, you may succeed in increasing the flow of milk if you excite greater activity by frequent milking, or by frequent attempts to milk.

Facial Nerve Cut by a Barbed Wire.—E. P., Cherry Creek, Mo. The barbed wire cut the facial nerve, hence the paralysis on one side. If you would also cut the other side, it would be much worse, because then the whole face would be paralyzed. If you leave it alone it is possible that the cut ends of the nerve will ultimately unite again, and then considerable improvement will be effected.

Twenty-one Years Old.—S. M. B., Couparie City, Miss. Your mare is too old to breed. Besides this, she probably suffers from a chronic catarrhal inflammation of the uterus, which, at such an advanced age, is not easily removed. You may try injections with a blood-warm one-per-cent solution of carbolic acid in water, applied once or twice a day. Your inquiry arrived two days too late to be answered in FARM AND FIRESIDE of February 15th.

Sheep Disease.—E. B., Annada, Mich. Your sheep probably died of some anemic disease, but whether the same was caused by worms or was due to other causes, cannot be ascertained from the meager statement you make. Loss of appetite and grating of the teeth are symptoms common to a good many sheep diseases. Parties sending inquiries concerning the nature of diseases that have become fatal, should make a post-mortem examination and communicate the result.

Polymia.—E. L. V., Bloomington, Ind. If your mule makes water uncommonly often, but is, and remains, otherwise in good health, and the polymia is not caused by spoiled or musty food, it is simply an indication that the kidneys have gradually assumed functions which should be performed by other organs—the skin, for instance. The remedy, therefore, consists in exciting the skin to greater activity. This is best accomplished by good and frequent grooming and judicious exercise.

A Collar-boil.—G. T. M., Martin, Mich. Such a collar-boil as you describe, that is of long standing and has been subjected to various kinds of treatment without effecting much improvement, is really best treated by a competent veterinarian, because it has become a somewhat complicated affair. If there is yet any degenerated or callous tissue, it must be destroyed. This may be effectively done with sulphate of copper. How, when and how long it has to be used depend upon the peculiarities of the case, and must be left to the judgment of the person who treats it. After all such tissue has been removed, the sore is ready to heal, and all that is necessary is to dress it with a mild antiseptic, to keep it clean and to protect it against injury. Greasy salves, etc., must not be used.

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Obliteration of the Crural Artery.—L. M. S., Ingleside, N. J. Such an intermittent lameness—all right in the stable or at rest, and rapidly increasing lameness, culminating in inability to go any further, or completely breaking down, when exercised—is usually due to an obliteration of one of the principal arteries—in most cases the crural—of the hind leg. It is incurable; or, at least, nothing can be done by way of treatment.

Blind Stagers.—L. A. R., East Elkport, Wis., writes: "We have a mare that has the staggers by spells. How shall we treat her?"
ANSWER:—The disease called "blind staggers" must be considered as incurable. Warm weather, severe exercise and heavy food cause an increase of the symptoms, and cold weather, light food and exemption from hard work effect a temporary improvement. A horse thus affected is worthless; at least, should never be used on the road, where the same might endanger human life.

Eighteen Years Old.—J. F. H., Duluth, Minn. You can hardly expect any more calves from a cow eighteen years old. The sticky and bad-smelling discharge mixed with blood is probably due to an existing chronic inflammation of the uterus, but it may be that old age also has something to do with it. If you desire to do something, you may make injections with a one-per-cent solution of carbolic acid in warm water. The catarrhal affection probably also extends to the mammary glands, and may be the cause of her milk yielding no butter.

Cow Coughing.—H., Marietta, Ohio. You as a physician ought to know that a diagnosis cannot be based upon just one symptom, especially if that symptom is one common to nearly all respiratory disorders. Make a physical examination of the chest by auscultation and percussion and report the result. It may then be possible to make a diagnosis. I cannot tell you whether or not the milk will be injurious as long as I do not know what ails the cow. The respiratory disorder may be nothing but a catarrhal affection, and for all I know, or can learn from your inquiry, it may be tuberculous.

Worms and Poverty.—W. E. S., Sheridan, Iowa. You say you think your hogs have worms. That is probably true, but as long as I do not know what kind of worms, it is impossible to give you any advice. Nothing can be done against living worms and against Trichina, while intestinal worms usually can be expelled by a good vermifuge; but even some of them—for instance, Echinorhynchus gigas, a worm very common, especially in the summer, in the small intestines of young pigs—is expelled only with great difficulty. Prof. Queen recommends diluted benzoin, picronitrate of potash, or shelled castor beans, but is doubtful about the efficiency.

Abortion in Cows—Sheep Disease.—D. P., Duval, Mo., writes: "Can you tell me the cause or the cure of abortion among my cows? It takes place at all stages."

ANSWER:—Abortion may have various causes. Where many cases occur in the same place, the cause usually is bacteritic, and the disease, for such it must be called, infectious. In such a case nothing can be done, except to take all cows with calf to other and uninfected premises, and then to thoroughly clean and disinfect the stable, barn, cattle-yard, etc., where the cows that aborted have been kept. It also may be well to wash the external genitals of the cows with calf with a three-per-cent solution of carbolic acid, once a day. As to your second question, your description is insufficient. I therefore cannot answer it.

Several Questions.—C. F. S. & Co., Petersburg, Va., writes: (1) "Is there any preventive of the Texas fever in cows?" (2) "What must we use when the cows have Texas fever?" (3) "What is the cause of cows becoming so weak just before the birth of calves, and not being able to stand on their hind feet? We have had several in this condition and have lost two, and have one now this way."

ANSWER:—(1) The only reliable prevention consists in keeping native cattle away from places where Texas, or southern, cattle have been, or still better, do not permit any southern cattle able to introduce the disease on

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WASH DAY Made easy. The World's Washer saves time, labor, clothes. Sent anywhere in U. S. Price reasonable. Circulars free. Agents wanted. C. E. ROSS, Lincoln, Ill.

your premises; or if one lives south, far enough to be in a place where northern cattle, if imported, become affected, it will be safest not to import any northern cattle. (2) Not any treatment is of much avail. A little, though not much, may be accomplished by a symptomatic treatment, and this is best left to a veterinarian familiar with the disease. (3) As a rule, poverty and too much bulky and innutritious food.

Diseased Eyes—Worms.—H. D., Saugatuck, Mich. As to the diseased eyes of your horse, I think your first diagnosis of periodical ophthalmia is correct. It must be considered as an incurable disease. Light food—or rather, food easy of digestion—and moderate exercise seem to somewhat retard the morbid process, and an occasional application of an eye-water composed of one grain of atropine to one ounce of distilled water, will have the effect of preventing a closing of the pupil, and thereby somewhat preserve the appearance of the eye, but will neither effect a cure nor prevent final loss of eyesight.—If by "large, white worms" you mean Ascaris megalocephalus, which occurs, sometimes in immense numbers, in the small intestines, and even in the stomach of young and emaciated and old and weak horses, tartar emetic, given in doses of one to two drams, on an empty stomach two mornings in succession, is about as efficient as anything. Still, the treatment will be successful only if the constitution of the afflicted animals is strengthened by feeding them liberal quantities of nutritious food. Good oats is the best.

Wants to Know of What Disease His Cow Died.—H. C. D., Wapello Assa, N. W. T., Canada. It is possible that your cow died of anthrax, or charbon. If you had made a post-mortem examination and communicated the result, I might have been able to give you a more definite answer. A description of a few symptoms, unless the latter are very characteristic, is seldom sufficient to base upon it a reliable diagnosis. You ask whether it was "blain." Blain is a rather indefinite term, and defined by Webster as "A bladder growing on the root of the tongue, against the windpipe, which swells so as to stop the breath." Such a disease is not known to veterinary science. Still it may be that in some countries it is used as a synonym for "gloss-anthrax," or anthrax in which the morbid process has become localized in the tongue. What you describe corresponds much more to that form of anthrax which in some countries is known as bloody murrain. Anthrax is caused by a bacillus, known as Bacillus anthracis. The same is introduced into the animal system either with the food and the water for drinking, or through sores or lesions in the skin or mucous membranes. A treatment is as good as useless.

Our Fireside.

TO-MORROW.

If we be glad or sad, or grave or gay,
If sobs or laughter fill our throats to-day,
What will it matter when light fades to gray,
To-morrow?

If we have now or love or bitter hate,
If scorn or pity on our pleadings wait,
The world will be the same whate'er our fate,
To-morrow.

Fret we to-day with hearts hot to the core
With keenest anguish for what comes no more,
Idle as dust the trifles we deplore!
To-morrow.

The daisies nod above our head,
Insensate sleep we in our churchyard bed,
'Twill nothing count how we to-day have bled,
To-morrow.

His Sister's Lover.

CHAPTER IX.

OGDEN'S STORY.

Fred Clayton did not go immediately to ascertain the hour when the next train for the East would depart. He was thoroughly confused by the sudden and unaccountable change in Luke Bennett, and it seemed necessary he should have time in which to think the matter over alone. Therefore, to that end, he entered the smoking-parlor of the hotel, and, seated where he would be free from interruption, tried to solve what was to him a mystery. He failed to connect the information he had given relative to Clark Ogden with his friend's sudden determination to accompany him home, and after studying the matter fully an hour, he said to himself:

"There is something the matter with Bennett's head. Since the first day I met him I have noticed that he is queer at times. Now it's my turn to care for him, and he shall have the best medical advice it is possible to obtain. It would indeed be terrible if this really develops into insanity, and I firmly believe it will be the end. If he should suddenly decide not to go with me, I must deceive him into getting on the train in some way, for I won't leave him here alone."

Then, securing an apartment on a Pullman car on the express which left the following morning, and purchasing the passage tickets, Fred telegraphed to his sister:

"Shall start to-morrow morning. Mr. Bennett will accompany me."

Meanwhile, the man who had saved Ruth's brother's life was pacing the floor nervously, all unconscious of the fact that his companion was absent an unusually long time.

There were but two thoughts in his mind.

The first that he was not really a murderer, and the second, that although Winfield Laurie was now cleared of the terrible charge, Ruth Clayton would never again recognize him because of the cowardice he had shown.

"Why didn't I tell the story exactly as it was?" he repeated over and over again. "Even if I had spent all this time in jail, the hours could not have been longer or more full of misery than they have been. I could have looked forward to a meeting with the woman I love; but now that dream is over; dead nearly a year ago."

Then came the thought that possibly Clark Ogden would charge him with intent to kill. Perhaps the man, confused by the submerison quite as much as Laurie himself, believed he had been pushed overboard.

"Whether he does or not, I must see him. He shall hear all I have to say, and then it is for him to decide what must be done. He can well afford to be generous now there is nothing between himself and Ruth Clayton to prevent the continuation of the love story. I will continue to wear the name of Luke Bennett, for it has not been disgraced."

He was yet pacing to and fro rapidly, his eyes gleaming with excitement, when Fred Clayton returned, and looking at him critically, that young gentleman decided he was right in his conjectures.

"There can be no doubt but his brain is affected," Fred said to himself, and then added aloud, "Now, my dear fellow, don't stir yourself up in such a fashion. We are to start in the morning, and if all goes well, there will be no stop between here and home."

"Couldn't you get a train to-night?"

"No; I have taken berths on the first one that starts."

"It will seem like an age till then."

"The time shall pass quickly. We'll take in the sights of the city by way of amusing ourselves, and the hours will go by so rapidly you'll wonder what has become of them."

Bennett made no reply, but threw himself

into a chair, pressing his head with his hands, and Fred speculated as to whether it would not be safer to consult a physician before starting.

Not once during that night would the excited man lie down, and his companion remained awake, watching closely until his scrutiny was observed.

"Why do you keep your eyes on me in that fashion?" said Bennett, impatiently. "One would think you had an idea I wasn't to be trusted alone."

"I think it best to stay here," Clayton replied, and these words gave his companion an inkling of the truth.

"Is it possible you believe I am— Wait until after we arrive in New York, and then you will change your mind. A man does not go through what I have without being upset at such a time as this."

"Can you tell me what has happened? Why you concluded so suddenly to go home with me?"

"You shall know all twenty-four hours after we arrive," Bennett replied, and then he made strenuous efforts to be more calm.

Overland from San Francisco to New York is at best a tedious journey, and even Fred Clayton, who thoroughly enjoyed traveling,

The brother and sister had but just exchanged greetings, when the former said, with the air of one who is about to confer some very great favor:

"Now, Ruth dear, you shall see one of the bravest fellows who has ever stepped on this planet of ours. If you fall in love with him, it'll only be doing exactly as I would do if I were a girl."

Then he turned, fancying his friend must have alighted, but saw him not.

"Gathering up his traps, so he said, and I suppose the crowd delays him. Stand here a moment until he comes out."

Ruth and her brother waited until all the passengers were on the platform; but Mr. Bennett did not put in an appearance.

Fred ran into the car, only to return a moment later as he said, with an air of perplexity:

"Well, that is singular. He has gone. Do you suppose he missed us in the throng?"

"Perhaps he intends you shall have a short time alone with your family before he calls. Undoubtedly he will come to the house this evening."

"But it was understood that he was to live with me while in the city."

"Then you'll see him soon again, and it is

which I managed to get hold of at the last moment."

"Do you think I intended to murder you?"

"I repeat that I know all about it. The wave swept me over; but why did you not give the alarm?"

"I was stunned, dazed; for the time being it seemed as if I must have thrown you from the rail, and I could not have spoken to have saved my own life, more particularly after I saw that Miss Clayton had been a witness to the whole affair."

"Miss Clayton! Then surely she understands it?"

"She believes I did it in cold blood, intending to murder you."

"It won't be much of a task to undeceive her. Now shake hands, old man. I can well fancy how you have suffered, while I've been having the jolliest time possible."

Laurie's face was transfigured with joy and relief as he clasped warmly the hand of the man he once feared he had murdered, and it was some moments before he gained sufficient control of his feelings to be able to carry on an intelligible conversation.

Then, over their wine and cigars, Bennett rapidly merging into his old self and growing each instant to look more like the lover who took passage on the Adriatic, the two told their stories.

"Mine is nothing but so much time idly and unprofitably spent," Bennett replied, in answer to Ogden's questions. "Shunned as a murderer by all who knew me; too cowardly to confess the truth, knowing it would not be believed, I went to the far West, the place of refuge for criminals like myself. There, under the name of Luke Bennett, I tried to build up a new individuality; to forget that Winfield Laurie ever had an existence."

"Among the Indians, cowboys, and even gamblers, I sought for that excitement which causes momentary forgetfulness; but found it not. In places of danger, and they were many, your face as I last saw it was ever before me. Never a night passed that I did not hear again the thumping of the steamer's screw, the foaming of the waters, and your cries for help. That there is a hell I now know, for I have been in its lowest depths since that terrible night."

"What caused you to come east?"

"I accidentally made the acquaintance of Miss Clayton's brother. He told me the story of your supposed murder, and repeated the gossip which our friends indulged in concerning it. Then came a time when the startling news arrived in his sister's letter that you were alive and in New York. I determined to start at once, seek you out, and do whatever lay in my power to earn forgiveness."

"That you don't need, for there has been nothing done to require it. My temper was the cause of everything, and I can swear you had no hand in my going overboard. In fact, for a few moments I believed you had fallen also, and thus explained to myself the reason why the steamer was not hoisted."

"How did you escape drowning?"

"The life-preserver, which I fancied you cast adrift, played the principal part in the rescue. It drifted within reach just at the nick of time, and was, as you know, large enough to keep the upper portion of my body well above the surface. I lashed myself to it, and wondered at the same time whether it wasn't a foolish thing to do, for death by starvation would be far worse than drowning."

"The fates willed that I wasn't to have any very startling adventures after the first one. When the sun rose next morning a ship was close at hand; her lookout saw me, and in half an hour I was on board, eating as hearty a breakfast as if there had been no such experience as drifting around the ocean a portloun of the night."

"The craft was bound for Hong Kong; the captain was well acquainted with my people, having sailed a number of years in my father's employ, and promised me unlimited credit when we should land. What was more to the purpose just then, his first mate was about my build, and gave me free run of his wardrobe."

"I was perfectly willing to extend my journey, believing I should recover from my hopeless passion for Miss Clayton, and more particularly because the captain's niece, one of the most charming creatures you ever met, was also on board. It was a delightful voyage; but we came back by rail and steamer, in order to be married this fall, when it is proposed to try another ocean trip, to last during the honeymoon. We shall join the ship at San Francisco, and sail around the Horn."

"And you no longer desire to meet Miss Clayton?"

"Only to explain that she wronged you in believing you were guilty of attempting to kill me. As for love, why, I am now con-



"WE SHALL BE ON A BETTER FOOTING BY BEGINNING WHERE WE LEFT OFF AT CHRISTIANA." NEITHER OF THESE DEEPLY INTERESTED PARTIES HAD SEEN HIM, AND HE CLOSED THE DOOR SOFTLY.

felt a wonderful sense of relief when it finally came to an end.

As for Bennett, he watched the time-table feverishly, evincing the utmost impatience when the train was a few moments late, and arousing only at long intervals to converse with his friend.

Fred had telegraphed to his sister several times during the journey, and when the train came to a stop at the depot after its three-thousand-mile run, the young man cried excitedly:

"There's Ruth! I knew she would be here to meet us! Now, old man, you're going to be introduced to the dearest girl in the world."

Bennett gave one quick glance from the car window, and then drew back nervously as he said:

"I will give you a chance to greet her first. Go ahead while I gather up my traps."

Clayton thought only of meeting his sister, and obeyed in a boyish fashion, while the other man walked to the rear end of the car.

best to go home now, for mother is waiting impatiently to see you."

Four hours later Luke Bennett, seated in a private parlor at the Hoffman House, was awaiting a visitor. There was a haggard look on his face, such as a criminal wears while waiting to be sentenced, and it deepened into one of positive fear when the door was finally opened to admit Clark Ogden.

"It was more than kind of you to come," Bennett began, as he rolled forward a chair for his visitor; but the latter paid no attention to it. Advancing with outstretched hand, Ogden said, cheerily:

"We shall be on a better footing by beginning where we left off at Christiana, Laurie."

"But do you know—"

"Better than any one else except yourself, and am also perfectly well aware that I began the quarrel without rhyme or reason. That thought was distinct in my mind when I saw the steamer fade away in the distance, while I was tossing about on the life-preserver,

vinced it was the most fortunate thing that ever happened to me, going over the Adriatic's rail just as I did. If such a thing was possible, I'd buy that particular wave which washed me off, and keep it under a glass case as a constant reminder of my good fortune. Will you go with me to Miss Clayton's?"

"No, it would do no good," Laurie replied, mournfully. "Even though convinced I was innocent, she could never forgive me for the cowardice in not explaining the whole affair as soon as I recovered from my bewilderment."

"Then all I can say is that she's a precious hard girl to please. My little girl would be only too glad to have me back, instead of questioning my courage. Why, man, if you had told such a story, an arrest for murder would have followed at once, and you condemned to death, perhaps hung, by this time."

"Yet I ought to have done it."
"Nothing of the kind. Don't allow what she has said to put such fancies into your head. Heaven knows, you must have suffered during all these months, when I was enjoying myself so thoroughly, and now it is only fair to get some pleasure out of life. You'll stay in New York, of course?"

"I hardly know. The joy of seeing you, hearing you speak in this manner, after the long time of despair and utter desolation, is so great that I can think of nothing else at present."

"But you must stay. I have told the story of my adventures at the clubs, taking good care, however, not to say anything about our having met on that evening, and there isn't an acquaintance of yours in the city who won't welcome you all the more warmly because of his previous absurd suspicions. I insist on your dining with me to-morrow, and then we'll call upon the girl I found through being washed overboard."

CHAPTER X.

THE MEETING.

Winfield Laurie did not venture out from his apartments during the remainder of this day. It was sufficient happiness for him to sit alone, and say to himself that the terrible load had been lifted from his life forever.

As for what Clark Ogden might say influencing Miss Clayton in any way to change her opinion of him, he did not believe would have the slightest effect. Fancying he knew her well, he understood that she would not overlook the cowardice he had displayed, and must ever believe him a murderer at heart, if not in deed.

"That portion of my life is ended forever," he said to himself, "and surely, by this time I should have grown accustomed to the idea. Come in," he added, as a knock was heard at the door.

"Well, did you count on hiding from me?" a cheery voice cried, and an instant later Fred Clayton was in the room, shaking his friend by the hand as if he had not seen him for years. "Why did you play me such a shabby trick yesterday?"

"In what way?"

"By running off while Ruth was waiting to greet you as the savior of her darling brother, and all that sort of thing. It looked like a slight put upon her."

"Believe me, my dear boy, it wasn't anything of the kind, and I am positive she understands it. I thought it best you should be alone with your family for a time."

"That's what she said; but it's all bosh, for we got through talking of my adventures in less than an hour after I arrived, and the governor insisted on waiting for you until the dinner was the same as spoiled. It won't happen again, though, for I've come to carry you off, bag and baggage."

"Where?"

"To my home, of course. Do you suppose I or any of the family would allow you to remain at a hotel after all that has been done?"

"You must excuse me, my dear boy; I can't go there; at least, not to-day."

"What is to prevent?"

"I have an engagement to dine with an acquaintance of yours, Mr. Clark Ogden."

"And you didn't tell me you knew him."

"I wasn't certain whether I could count myself among his friends or not."

"Now I wish I had found you an hour earlier; but I went to half a dozen hotels before striking the right one."

"It would have made no difference, I assure you, for my engagement was made last evening."

"That is all right; but you couldn't have refused to go when I said Ogden himself was at our house. He called at a frightfully early hour, and was elocuted with Ruth until I began to think the matter was serious; but I've since learned that he's to be married to a girl who rescued him, or something of that kind. Now, look here, Bennett, you're bound to come with me, if you don't stop more than ten minutes, for I've promised Ruth."

"I can't fancy she will suffer any great disappointment if I don't come," Laurie replied, with an evident effort to speak calmly.

"Well, I happen to know different. This is the message she told me to bring: 'Tell Mr. Bennett I wish very much to see the gentleman who so gallantly saved my brother's life, and if it could have happened that I once thought him a coward, I would now hail him as a hero.' Laying it on pretty thick, wasn't it?"

Laurie's face alternately flushed and paled; his hands were clasped and unclasped nervously, while his lips quivered with suppressed excitement. Fred waited a moment for a reply, and then, as none came, said peremptorily:

"There's no way out of it, old man. I've given my word to flash you up, and it must be done, if I'm forced to carry you as you did me that day on the desert."

Laurie was quite confident he was doing a foolish thing in thus yielding to the young man.

To see her for a moment, hear only words of gratitude from the lips which had once spoken love, and then go away alone, without hope, would be an ordeal he had no right to court if he was to steel himself against her.

Fred did not allow him much time for consideration. Literally pulling him from the room, he deposited the unwilling visitor in the carriage, and said, as they drove rapidly along:

"If mother and Ruth can't persuade you to break the engagement with Ogden and dine with us, your agony won't be over when this visit comes to an end, for I have promised the governor he should see you before midnight."

"Why not go there first?" Laurie asked, thinking to defer, if only for a few hours, the interview he almost feared to brave.

"Because the ladies have the best call on your pleasing face. Now, cheer up, old man. It isn't anything so very dreadful to see my sister, as lots of people can tell you."

"I am certain it will be charming; but I dislike being thanked for such trifling service as I rendered you, and ladies always think it necessary to be very grateful, even for the slightest service."

"Then my life is of so little value that you call the saving of it a 'trifling matter,' eh?" Fred asked, with a laugh. "We'll talk about that later, for just now we are at my home, and your trouble is about to begin."

Laurie felt that it was "trouble" indeed to stand face to face with the woman he loved, knowing what she had believed about him; but he made a manly effort to appear calm, and one would have said that of the two who ascended the steps to Mr. Clayton's home, the elder was the most unconcerned.

Fred opened the door with his key, ushered the guest into one of the small drawing-rooms, and left him alone while he went to summon his mother and sister.

Mrs. Clayton was the first to enter, and she said, extending both hands in the kindest manner:

"I can't say, Mr. Laurie, what pleasure it gives me to meet you, and be able to speak my thanks for your great service to my darling boy."

"It will please me best if nothing is said regarding what may have happened in the West. I did only that which any other man would have done under the circumstances, and do not deserve thanks."

Fred, who had followed close behind in order to introduce his mother, stepped suddenly back on hearing the name, and then his sister passed him, to say in a voice trembling with emotion:

"There could be no greater pleasure than to meet Mr. Laurie once more, especially after what has happened."

Then he saw his friend, whom he had supposed was named Bennett, bend over Ruth's hand as he kissed it reverentially, and the surprise was too much for him.

He retreated to the parlor without speaking, and, once there, tried to solve the problem.

That Ogden, who had been believed dead, and Laurie, who was accused of murdering his friend, should call on the same day, and that this alleged murderer proved to be the man who had saved his life, seemed odd, if nothing more.

Strive as he might, it was impossible to make it plain in his mind, and after struggling mentally five minutes or more, he suddenly remembered that he should, in order to show the proper amount of courtesy to his friend, return to the drawing-room.

The door was closed; but Fred opened it without thinking he might be intruding, and, to his yet greater surprise, saw Ruth closely enfolded in Laurie's embrace. Neither of these deeply interested parties had seen him, and he closed the door softly, giving vent to a prolonged whistle when he was on the floor above.

"I reckon I understand the whole thing pretty well now, and it's big odds that Mr. Clark Ogden will dine alone to-day, unless he can find some other guest than Mr. Winfield Laurie, alias Luke Bennett." JAMES OTIS.

[THE END.]

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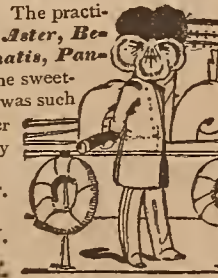


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Our Household.

NEXT WEEK.

"The work will be easier next week," she said; "The extra baking is done and the bread is the most I shall do in that line; Master Ned Has a brand new suit; no patches he'll need, I shall get quite a rest—I need one, indeed!"

"I will read my new cook-book—at Christmas it came— Charles said it would give me a 'pointer' on game,

In the cooking of which I am decidedly 'lame.' Alas, I confess my shortcomings are many— Ah, me, that I might only live without any!"

"And if I find time, I'll try over that song That Isabel lent me—I've kept it so long I'm really ashamed to return it! It's wrong To neglect social duties—but then I've no time

To spare for society, arts nor for rhyme.

But I'll 'catch up' next week with some of these matters,

And garnish both inside and out of the platters!"

These high hopes had possessed this poor housewife before.

And as often been dashed upon fate's stony floor;

But the storm overpast—grew courageous once more,

And, as "hope springs eternal," she gathered them up,

Thinking some day to quaff from a high, brimming cup!

But those dainty air-castles came down with a smash,

As Jimmy came in "broken out" with a rash, And she heard a wild yell and a horrible crash!

From the pantry it came—Johnny lay 'midst the wreck,

And had broken his arm instead of his neck!

But time healed the wounds and hope came again,

To dwell a brief space with this mother of men;

But the rainbow wings pale in the strife that came then,

For a new trial rose in the buffalo-bugs

That got into the carpet and nice parlor rugs.

"The work will be easier next week," she said,

"The west wind is warm, the clover is red, I'll try a brisk walk, 'twill help my bad head;

Through bright country lanes I'm pining to roam,

There's nothing whatever to keep me at home."

But when next week came she rode out instead,

With coaches and horses; her poor, aching head

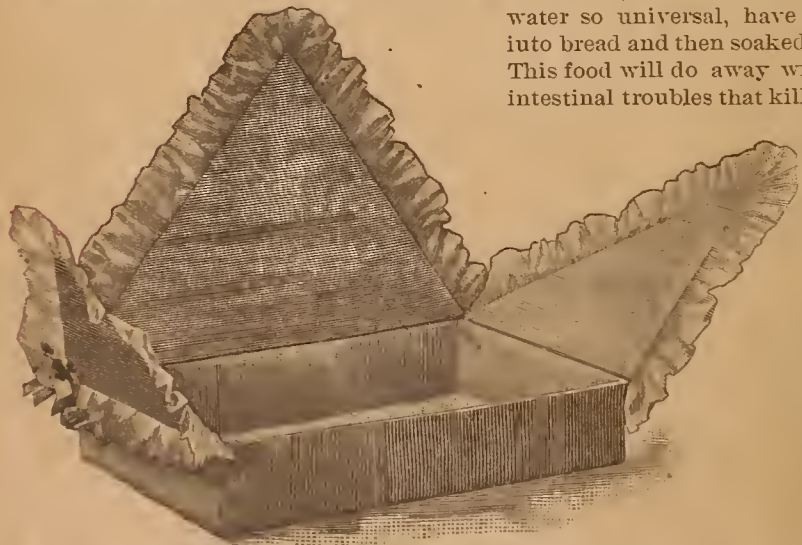
At rest on a little square pillow. They said 'Twas a "beautiful funeral," the flowers "immense,"

"Poor Charles did his duty, he spared no expense."

—Good Housekeeping.

A HOTBED FOR YOUNG CHICKENS.

WHILE on an errand to an old German market gardener last spring, I saw a hot-bed full of young chickens, that both amused and interested me. It was a novel idea: one that the accident of circumstances had forced on the old gardener. A hen had stolen her nest and brought forth her brood



EASTER FAVOR—OPEN.

the last of February. A cold snap coming on, and having no place warm enough to keep them, he concluded they would have to freeze, until he thought of his hotbed just ready for the reception of young plants. He partitioned off about ten feet of the bed, put the young chicks in and set the mother adrift.

So well did the little things seem to thrive for the first few days, that in his delight he set the hen on more eggs, expecting to set apart one of the hotbeds to the culture of young chickens. In the next few days, however, some died, owing

to being kept too warm. Then he raised the sash too high and chilled off a few more, so that by the time the second brood was ready he had struck an average temperature that was very successful.

If you own an incubator and wish to adopt this plan on a large scale, I would advise you to make your hotbed at least ten days before you expect the brood to come off, so that the first fierce heat may be abated. Also, pack the manure and earth in the corners clear to the top of the sash, hoeing it out in a rounding form, for chickens have a tendency to crowd in the corners, so that those nearest the wall are in danger of being smothered and trampled to death. Before you put the young chickens in the frame or hotbed, place several inches of dry sand and soil over the manure.

Improper ventilation was to blame for the loss of nearly all the first lot of chickens the old gardener experimented with. In the first place, he ventilated in the same way an ordinary hotbed is aired, by raising the sash at intervals along the frame, and the little chicks would cheep disconsolately at having no place to huddle out of the draft. Then when the sun went down the sashes were closed tightly, and by morning



PINCUSHION.

they were too hot, so it is a wonder they did not all spindle away and die. The proper way to ventilate is to bore a row of holes at each end of the frame and at intervals along the sides, and over them tack muslin or cheese-cloth. This allows of the free circulation of air, while preventing a direct draft, and keeps the air as fresh at night as in the day-time.

Keep the temperature for very young chicks at about sixty-five, and gradually bring it down to sixty degrees. On sunshiny days raise, not one sash two feet, but many of them a few inches. Watch the thermometer, and let that be your guide, and if the day be sunshiny, but cold and windy, raise the sash from the side opposite to which the wind is blowing; thus, if the wind be from the east, raise the sash on the west. This mode allows the wind to blow over but not into the interior of the frame. Also, when the sun shines, throw some old muslin or put some old boards over a portion of the glass, that they may have some shelter from the direct rays of the sun.

Chickens raised in such an artificial manner are very naturally more susceptible to diseases than chickens raised by a more natural method. But the profit on early chickens is so great that they are well worth the extra labor. Properly-prepared food will do much to ward off disease from early chicks. Their first meal should be hard-boiled eggs minced fine, shells and all. After that, instead of the corn-meal and water so universal, have the meal baked into bread and then soaked in scalded milk. This food will do away with many of the intestinal troubles that kill so many young

chickens fed on raw dough. A better bread for little chicks is made of corn-meal, rolled oats, barley and wheat; this mixture gives them all the elements of blood, bone and muscle supplied by grain. Buy cheap pieces of meat, boil, take out the meat and make mush of the

broth in which it was boiled, and give them one meal a day of this mush; mince the meat and feed it to them, and once a day a mess of chopped cabbage, lettuce, turnips or chickweed, and they are very fond of watercress. Once a week give them a few minced onions, the latter being excellent to keep them healthy. This sort of diet kept up for three weeks will give your chickens a fine start, and if this food be followed by cracked corn and wheat, you will, other conditions being equal, have some very fine early chickens.

Above all things, keep the vessels from

which you feed the chickens, or the boards you feed them on, scrupulously clean, scalding them frequently. Sour food has caused many a chicken to lay (on its side) prematurely. See that they have pure water in vessels so shallow that they cannot drown. About as good a vessel as any is a shallow, tin pie-pan, weighted in the center so they cannot tilt it. Without any doubt, young chickens are the most idiotic things in the world about wetting their feet. If there is a tablespoonful of water anywhere, they will choose that spot to stand in, regardless of croup.

Just as soon as possible, and every day that is possible, let the chickens out for a run on dry ground or boards, or the barn floor. Harden them by all reasonable means.

Don't expect a chicken from every egg set in February. Don't let the incubator raise above one hundred and five. Don't let the hotbed raise above sixty-five degrees. Don't let the sash be down tight when the sun shines, or you may find your chickens with their toes turned up, not to the daisies, but to the skylights. We have for some years saved all grass cut by the lawn-mower, cured it, stored it in paper sacks, and in winter the chickens eat it greedily when steamed. The grass from lawns is so tender, and when quickly dried and kept in a clean place, it smells like fresh grass when steamed in winter. Try it.

JESSIE M. STEWART GOOD.

NOVELTIES.

EDGING.

During these blowy days, when one must sometimes keep in the house, it is nice to have some kind of easy work in one's basket. This pattern of edging can be used for many purposes, in silk upon flannel, or in cotton for muslin, or in carpet-chain for lambrequins for use during summer, when one wants to give a clean look to the whole house.

POKE BONNET.

These picturesque bonnets will probably be revived with the summer styles. They were always very becoming to young faces, and particularly so to children. The face lined with black velvet, the outside trimming can be very simple.

HANDKERCHIEF-CASE.

These cases are very nice to keep on one's bureau to hold clean handkerchiefs, and are made of a square of pasteboard covered with a layer of cotton, with sachet-powder between it, then covered with colored silk. Around this is a net bag of fancy crocheting; it can be the lace pattern we give, or simply loops in knitting silk. Around the top is two ribbons to draw it shut. They are equally as pretty made of lace and drawn up with arrasene.

POWDER SACHET.

This is a circular bag made of cheese-cloth filled with a good powder, and then a cover made of white Saxony wool, fastened around the edge with baby ribbons drawn in and out. It is quite an addition to a baby-basket, and is a convenient article for a traveling-bag.

EASTER FAVORS.

These lovely boxes are much liked by the girls for bonbons and gloves and handkerchiefs. They are made of the new crimped tissue-paper over a box, and trimmed with flowers made of the plain paper. In our illustration, the box opens in three sections, each one being trimmed with an edge of the paper, which can be pulled out to simulate a ruffle. Made of white, any tint in water-colors can be used with it.

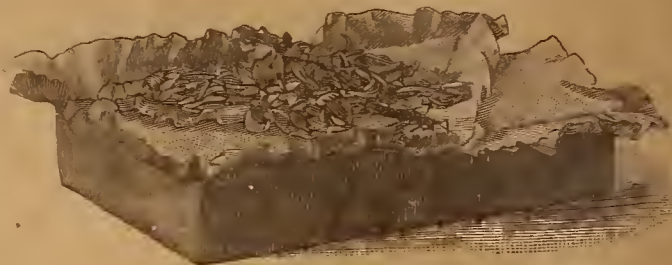
SILENCE COVER.

These covers for lids to toilet china are useful to prevent the noise usually made by them, and also to keep the edges from chipping off. They are made of Dexter cotton, No. 14, and just the usual shell pattern, with a chain of two and a long stitch and a chain of two between each, making the shells in-

crease one stitch in each row. On the under side make a few rows to slip the edge of the lid in. Draw each side up with a cord, and put tassels to the one on top. Around the edge and up between finish with a color in split zephyr.

THROWS.

They still stay with us, those frail, dust-catching articles. I saw a very pretty one made of one and a fourth yards of white silk veiling, with wheels of inch-wide, yellow ribbon drawn up in the middle, and a center formed of brown arrasene. These are dotted over it as you please to arrange it—either begin



EASTER FAVOR—CLOSED.

with five along the bottom edge and form a pyramid ending with one, or arrange in two lines. The edges are finished with yellow silk tassels, eight on each end. They are simple to make, and not too expensive to do away with when they become soiled.

PINCUSHION.

These are convenient to use in a traveling-satchel or to hang beside one's bureau. They are covered with any color of silk, and covered on one side with a square of bolting-cloth, upon which is painted some kind of a merry face.

LOUISE LONG CHRISTIE.

ENJOYING LIFE.

When people who have worked industriously the best part of their lives have accumulated, if not a fortune, a nest-egg, which insures freedom from care, why don't they stop the hard work, give up the worry and fret and enjoy what they have? Habits fixed are hard to break, but it looks rather pitiful to see old people who have



POKE BONNET.

plenty still toiling on, as though they had not a day's living in advance.

I recall with pleasure two sensible old-young people, who have both passed seventy. They are not wealthy, but they have plenty. A few years ago they gave up the work and worry, and have now settled down to enjoy what they have worked to obtain. I said "settled down," but the following, from a letter written by them, might convince otherwise:

"You see, we are down in the South again. Too cold at home. Some people say we are a frisky old couple, to be gadding about so much; but who has a better right?"

Isn't it a mistake to save everything for the children? Does it not make them selfish, and is their appreciation of their parents any the greater?"

MARY D. SIBLEY.

Dr. Shoop, Racine, Wis., Offers Liberal pay to Agents selling to dealers. Dr. Shoop's Restorative, the great Nerve Tonic, which, through a newly discovered principle, cures stomach, liver and kidney diseases, by its action upon the nerves that govern these organs. Book and samples free for 2-cent stamp. Address Box B.

WORK FOR MARCH.

What are you doing these windy days, when the mud keeps every farmer's wife and daughter a prisoner for days and perhaps weeks?

It is just the best time in the whole year to look over the table-linen and bed-clothing, and see what is lacking and what needs repairing. Of course, if you are "mud bound" you cannot replace the missing articles very well until some one has to go to town, mud or no mud, and then if the list has been made out previously in that grand "look over," there will not likely be any omissions or mistakes.

Just get a bolt of muslin while you are in the city, for there is no time in the year when time can be better spared for the making of underclothing.

Winter dressmaking is surely out of the way by this time, and it is too early for



POWDER SACHET.

spring styles; there is no fruit to put up; not very often any butter to be made; no hired men to board; usually not much "sugar weather" until the middle of the month, at least.

So, really, I think one can put in the time very profitably in the sewing department.

What do you do with the scraps when cutting out new garments? Put them all in a pan, and then cut out what is good for carpet rags and put in the sack of hit-and-miss rags. It is good work to set the small girl at, if she is old enough to be trusted with the scissors. One cannot imagine how fast the hit-and-miss sack will fill up, when every scrap is saved in this way. Wouldn't a carpet wear, though, that was made out of the scraps of the new cloth entirely. Even in patching old garments, if there are a few strips of the new patches left that are long enough, cut them into carpet rags; they are no smaller than the drops of water that go to make up the ocean. Don't cut rags when too short; that is saving a rag at the expense of thread—a rather expensive economy. March is a good time to look out for any other worn garments that are ready to go into the carpet. Don't have a stack of old clothes hanging around forever. The best way is to tear up a garment as soon as through wearing, sew up the carpet rags and put the refuse in the rag-bag.

Sometimes early winter and the holidays crowd one's time so that such work has to be laid aside, and now is a good time to finish it up. Get the children interested in seeing who gets the biggest ball and a prize for the same, and for the most in number. Did you ever sew carpet rags on the machine? Double the rags over, as if to sew by hand, lift the foot of the machine, slip the rag under and sew lengthwise about an inch; have another folded to the end of the one you sewed, slip under the presser-foot



EDGING.

without breaking the thread, sew this one, and then another to the last end, and so on. When tired of sewing, take the scissors and cut between the rags which have been sewed together, and wind up into a ball. One has no idea how rapidly they can sew rags in this way until they have tried for themselves. It may be a little awkward at first to keep the rags folded until you get them under the foot and sewed nicely, but

persevere, and your patience will be amply rewarded.

One very important March item is to look over the garden seeds—and the flowers, too, if one may have a few—to see what is lacking. Send to some reliable seedsman your order, and get good seeds and perhaps something extra. If you wait until planting-time, it will be a hasty trip to the first grocery, take some old stock, most likely, poor seed, poor plants, poor garden, wife cross, and—oh, dear! Make out the seed list some stormy day, when "hubby" is in the house and has had a good dinner, and perhaps he will let you order a package or two of flower seeds also; and with a good garden, I'll warrant the wife will be good-natured half the time, anyway; and she ought to be all the time, if she has had any previous experience of nothing but "pork and 'taters" all summer. The last of this month should see the sweet peas planted, and hotbeds made and planted with tomatoes, cabbage, celery and cauliflower. If you have room enough, lettuce and radishes can be grown in the hotbed and be ready for use long before those in the garden.

Last year there was a cucumber-vine in the hotbed, and those first cucumbers were "just awfully good," to quote school-girl slang. Some of the later cauliflowers will be better than the Early Snowball, as that will usually mature in the middle of the summer, when it is too hot and dry to get the best results. The outer leaves should be drawn up over the white part and pinned, to keep the head from getting dark.

GYPSEY.

A HOME STAR.

Did you ever watch the stars come out in the gloom of evening, trembling into brightness and shining always with a purer, steadier light as the gloom deepened. So upon earth, in the somber and lonely twilight, the "home stars" shine out in the gloom, growing brighter as the shadows deepen. If we knew of all the hopes, fears, joy, grief and love gathered around these home stars in this one little village, how much we would learn of life.

A new star of this kind has just arisen across the street, and it has a story so bright, tender and sweet, I am going to tell you about it. Our attention was first called to it when this bright and sunny lot was chosen and the foundations of the house were laid.

Then it came out that Will Joyce was to marry Ethel Brown. Will Joyce was a young fellow not known to society for the reason that he worked in the foundry. Ethel Brown was a shy, modest young girl, fatherless and motherless, who lived a life as retired as that of a wood-violet with her Aunt Hetty Brown, in the old-fashioned house next to the Methodist church. Miss Hetty Brown and Ethel always went to church regularly, and Will Joyce and all of his family were Methodists, and that was the way the young people found each other out.

As the little house progressed in the golden weather, and began to put on bay-windows and piazzas and fashionable gables, and even aspired to a tiny pointed tower, which put all the old-fashioned houses in the neighborhood out of countenance, people became more and more interested. It was a pleasant sight to watch the young lovers coming every few days to visit it, flitting joyfully around and in and out, as birds do when they build a nest.

Society began to recognize Will Joyce very kindly in these days. He was a good-looking fellow, and he had quite a respectable bank account. It had been learned, too, that his father, a foreman in the foundry, had invented a valuable improvement to some kind of a farming implement, and the royalty brought his family a handsome income. As father and son now went to their work, quietly and faithfully as before, it was rumored about that the president of the company had said they were among the best men in town, only no one had ever appreciated them.

And plain little Ethel Brown, how did it happen that all this good fortune came to her? She had never been sent away to school and she had no accomplishments; she had no style in dress, for, although neat and modest, her gowns were always of the plainest; she had no beauty, only

such as youth, health and innocence gives; she had no money, or any expectation of falling heir to a fortune, for her Aunt Hetty was very poor. What had Will Joyce found about Ethel that was so attractive?

"She isn't snippy," said one neighbor. "She always smiles and speaks to us old ladies at the church socials, and that's more than most young folks do nowadays."

"Ethel is a nice girl," said another, heartily. "Everybody likes Ethel."

"Yes," added another, "and her Aunt Hetty has brought her up to be a good little



HANDKERCHIEF-CASE.

housekeeper. She makes all the bread and gets all the meals. She is wonderfully capable for such a young girl."

As for Ethel, when any of these comments reached her ears, she let them go by like the idle murmurings of the wind. She knew the reason why Will Joyce had chosen her to be his wife, but she kept the glad secret in her own heart.

It seemed as if the little house never would be finished. Even the neighbors began to grow impatient; but every dainty piece of filagree that could be thought of was at last added to piazza, cornice and tower, all modern improvements that workmen could devise finally made the little home complete.

If Aunt Hetty grieved because she could not give her dear Ethel a handsome wedding outfit, she did not grieve long, for a very kind friend, knowing Ethel's slender means, insisted upon furnishing the wedding-gown, making and all. She wanted that share in the bride's happiness, she said. It was a soft, gray silk, rich with lace, and as Ethel, with sparkling eyes and a peach-blossom color in her cheeks, tried it on before the glass, she saw for the first time that she was pretty to look at. Other dresses followed fast and thick—a walking-dress, a house-dress and a traveling-dress, although Ethel was to have no wedding journey, only the journey to her own home. There was a handsome wrap to replace the worn little jacket, and a hat of rich, white, uncut velvet and plumes, so splendid that Ethel trembled to put it on.

All the friends, all the church people, all the kindred far and near, on both sides, now remembered the young couple. There was china and silver and linen, a bedroom set and parlor furniture and pictures, and a little purseful of gold to buy more of things needful. The neighbors grew quite excited over watching all the loads of new things going into the little house. Then pretty shades and lace curtains were hung at the windows, and we all knew that this young couple were in the midst of the wildest, most delightful happiness "getting settled."

When everything was in order, they were married quietly, in the middle of the afternoon, in Aunt Hetty's parlor, and afterwards drove to the dear little home awaiting them, all unconscious of the old slipper tied with a broad white ribbon to the back of the carriage for good luck.

We went in a few days later to call on the bride, who welcomed us brightly and showed us all her little house. Everything was fresh, shining and new, from the pretty rugs, oak furniture and tasteful pictures in the parlors, to the tins winking and shining with brightness in the cozy kitchen, and the silver and china on the daintily-set table in the cheery little dining-room. Even the palm-tree, that stretched out its plummy leaves in the sunny bay-window, was a young palm-tree full of life and hope. As the young housekeeper ran joyfully about, showing us one pretty thing after another, and telling us how the love of friends seemed to be shining all over them, we asked her if the work tired her.

"Tired!" she said, laughing out of pure happiness, "I never get tired. It's like play."

Then we remembered what good Thomas a' Kempis says: "A burden love carries is no burden."

At night, when the young husband comes home from his work, we see him tap playfully on the window as a signal to the little wife within, and we know what a glad welcome awaits him as he enters the door. Tommy, the milk-boy, was never known to be particularly quick in his perceptions, but even he has noticed the heavenly atmosphere of this little home, and he remarked to a neighbor one day, pointing out the house:

"That's the happiest young woman in there I ever saw."

Now, when this little home star beams out at night, we know that it has been lighted by love, and that it will bring a cheer and brightness of its own into the world.

MARGARET CARYL.

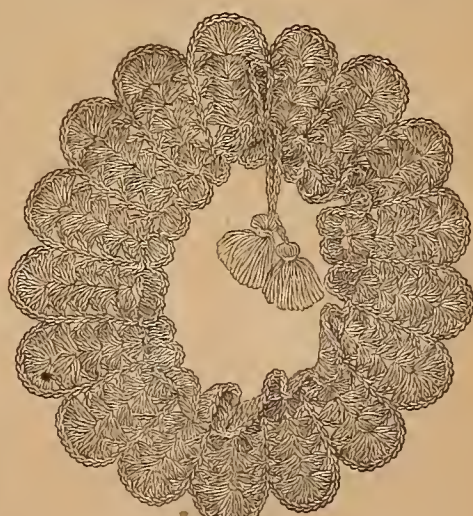
"THE BEAUTIFUL SNOW."

When it snows during the night, and you look out in the morning to see the earth all tucked up in a fleecy coverlet softer than down and whiter than ermine, one of two thoughts, doubtless, enters your mind: That it will protect the wheat and keep it from freezing, or that it will make splendid sleighing.

Do you ever think about the wonder and beauty of the snow itself? Do you know what snow is?

Snow is formed by the congelation, or passing from a fluid to a solid state, of a vapor which is produced in the middle region of the air, when its (the atmosphere's) temperature falls below the point where water would freeze. We look at it, as it lies in a body of dazzling whiteness on the earth, as a composite mass, without thinking of what it is composed.

Snow falls in a great variety of exquisitely-formed crystals, of which the six-pointed star, which is seen with numerous modifications and variations, seems the favorite by natural selection. These are to be observed from one thirty-fifth to one third of an inch in diameter. It is said that the microscope reveals over one thousand diverse shapes of snow crystals. The reason why snow warms the earth is that its peculiar texture is a bad conductor of heat, and does not allow the heat belonging to the earth to escape through it and be dissipated in space. It warms the air because of its whiteness, which reflects the



COVER.

heat of the sun upon objects above the snow.

Sometimes we hear or read of snow in certain places—more commonly the Arctic regions—being red or green. These colors are caused by the presence of a species of infinitesimal, flowerless vegetation of the lowest order, which abounds with the snow and belongs to the same family as seaweed and water-plants. These are all embraced under the general Latin name of *Algæ*.

MINNIE W. BAINES-MILLER.

SUET PUDDING AND SAUCE.

- 1 cupful of molasses,
- 1 cupful of suet, chopped fine,
- 1 cupful of sweet milk,
- 1 cupful of raisins,
- ½ cupful of currants,
- 2½ cupfuls of flour,
- ½ teaspoonful of soda,
- Salt and spice to taste.

Steam two and one half hours.

Sauce.—

- 1½ pints of water,
- 1½ cupfuls of sugar,
- 2 tablespoonfuls of vinegar,
- ½ a nutmeg,
- A little salt,
- Flour to thicken,
- 1 good teaspoonful of butter.

Salem, Ohio.

E. C. G.

Our Household.

THE TOOTH-BRUSH MAN.



Look at me well, dear children,
I only measure a span,
But I am a mighty giant,
Whose name is the Tooth-brush
Man.

I go to war with the dentist
With only one little brush,
While they have great big for-
ceps,
That pull and grind and crush.

I flourish my little bristles
And drive away old toothache,
With his swollen jaw, and old
file and saw,
Who make you shiver and
shake.

The rude little boy who neglects
me
May laugh, but his teeth will
not,
And the vain little girl who for-
gets me
Will never forget she forgot.

But speak to me every morning,
And speak to me every night,
And I, in return for your cour-
tesy,
Will keep your teeth sound and
white.

—Pearl Rivers.

PINEAPPLE TIDY.

Material: One ball of crochet cotton in any color preferred. Price 8 cents. Medium-sized steel hook.

Make a chain of twelve stitches, turn, and into the fourth stitch make a double shell of six double crochet, with a chain of one between each three, then chain four and skip four stitches of the chain, and make another double shell; turn, chain four and put a double shell in the middle of the one on the first row, and so on until you have a band of two rows of shells, with four chain between, twenty shells long.

Then the crocheting goes back and forth on the band.

Turn and chain four, and fasten with a single crochet in the bottom loop of the shell. Make five this way, and at the middle shell put three double crochet stitches, with a chain of four, and three more double crochet stitches in the same place. Then continue the chain of four and fasten clear across.

Coming back, make a shell of six double crochet with one stitch between in the first loop, a similar double shell in the second loop, then chain four, skip a loop, and put a double shell in the next one. chain four again, and into the loop in the middle put eighteen long stitches, with the thread thrown over the needle twice; then finish the row as begun.

Make the border stitches alike, and as you come back to the pineapple center, put a chain of four between and fasten with single crochet between every stitch of the previous row.

It narrows itself every time. When narrowed down to a point, crochet a border of shells all around, using eight long crochet with a picot between; that is, a chain of three fastened in the end of every stitch.

Draw ribbon through all the loops, and add a graceful bow to finish it. L. L. C.

TOWELS.

It was my first call after my newly married friend had gone to housekeeping; and as I glanced about at the arrangement of the dainty house, I said:

"You have furnished beautifully, with so much taste."

She looked at me with a playful sparkle in her laughing eyes, as she said:

"Yes, with towels."

"Towels!" exclaimed I.

She laughed again. "Come and see," was her response.

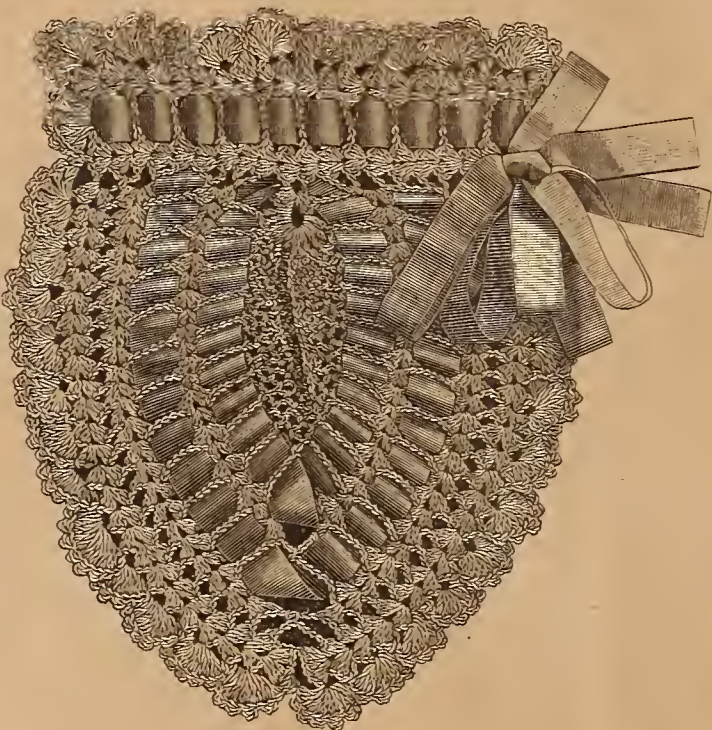
She took me into her bedroom. There was a large, handsome, damask towel, with an old-gold border and knotted fringe, on

the top of the plain stand used as a toilet-table, while its mate was thrown over the top of the cane-seated rocker, also plain, and tied with a yellow ribbon. Two or three fringed towels with yellow borders (the color predominating in the room) hung, smoothly ironed, over the towel-rack, and still another, in lieu of a scarf, folded lengthwise down the middle, lay on the top of the dresser.

"They can be got for fifty cents a pair," said she, "cheaper than anything else that looks as well and is as good for the purpose. Throws, on chairs, get mussed and stringy, and cannot be cleaved to look fresh and dainty like these. Stand here in the doorway and look. Isn't my bedroom pretty? And yet the entire decorative effect is wrought with a couple of dollars' worth of towels."

The sitting-room was a red room. From a little shelf behind the stove-pipe depended the fringed, uneven points, gracefully disposed, of a towel bordered with red. Behind her sewing-machine hung a scrap-bag made of another red-bordered towel, with the sides stitched together to within half a foot of the border. That half foot hung over on the outside. There was a casing stitched at the beginning of it, into which a red ribbon was run by which the bag was hung.

"I am not quite so prodigal of them in this room, you see," said she, straightening the fringe of the one beneath her work-basket. "I am compelled to avoid a shabby appearance. But, used with discretion, there is nothing that is more of 'a thing of beauty and a joy forever' than a bright-bordered, damask towel of good quality, placed where it will do the most good as an object of daintiness and color for the eye to rest upon. I mean, of course, where people



PINEAPPLE TIDY.

must economize on more expensive articles."

"Isn't the beauty of the fringe destroyed in washing?"

"Oh, no, it oughtn't to be, if properly snapped out when wet. But if it should mat a little through carelessness or inattention, it can easily be separated by the use of a metal comb, or even a long hat-pin."

"You have something else I admire, also," I said, "clean lamp-chimneys."

"Yes; I discovered that there was no use in scrubbing and mopping them with soap-suds, or even clear water. A few drops of alcohol makes them crystal clear."

I went home thinking my little friend a woman wise in her day and generation, and concluded that it would not surprise me if her husband became rich some day.

MARION LEROY.

WHAT WILL YOU PREPARE FOR SCHOOL CHILDREN'S LUNCHEONS?

The writer once read a treatise on "The child's lunch-basket," with recipes for preparing food for it. The food was most elaborate confections, which would take time, strength and money to evolve, quite beyond the average house-mother, and the article was laid down with a sigh that its promising title offered so little practical help. Lunch-baskets are not so common these days as they used to be, and it is the luncheon served at home which now creates the dilemma.

As a rule, children reach the house after the morning's session at school in a state of starvation; anything that is ready is greedily eaten. It should be, therefore, an easy matter to serve wholesome food, since the sauce of a good appetite is so sure to be

SOME WISE SAYINGS ARE



"Great designs require great consideration.
One eye-witness is better than ten hear-says.
Little and often fills the purse.
Diligence is the mistress of success.
Deserve success and you shall command it.
Use not to-day what to-morrow may want.
Spare superfluities to provide necessities.
Truth never fears a rigid examination."

But the wisest of all is—USE

GOLD DUST

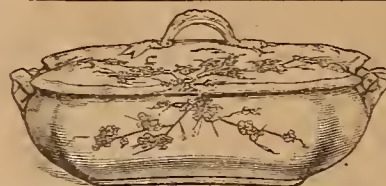
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present, although a small daughter of eight did say the other day, "I wish wholesome things were as good as good things." It is the care given to many simple dishes which makes them good as well as wholesome. Boiled rice, for example, is either very good and much liked by children, or it is an uneatable, sticky, flavorless mass that nobody welcomes. A teaspoonful of rice, carefully looked over and put on in cold water and allowed to boil until every kernel is separate, but tender, is an excellent luncheon dish for children, served hot with consommé. Salt the rice as the water comes to a boil.

The consommé is easily prepared with beef extract and hot water, and adds a relishable flavor. What is left of the rice can be put away while warm in small cups and served the next day on a small platter, with stewed prunes poured around the little pyramids, or a teaspoonful of jam on each one, and eaten with rich milk. Tomato toast, which is tomatoes stewed down and poured over small squares of toast, is liked by most children. Spaghetti or macaroni boiled twenty minutes in salted water and eaten with gravy, some warmed-over clear soup or the beef extract again, is another dish that never goes begging.—*Philadelphia Press.*

TO HELP THE BACHELORS.

There have been started in this and other cities agencies founded by young women whose object it is to go about from one large hotel or boarding-house to another, collecting the mending of bachelors and returning the socks or shirts beautifully darned or neatly repaired at the end of a stated time.

It is a good scheme, and one whereby women will be able very materially to increase their finances, for all unmarried men, unless favored with a host of sisters or relatives who are willing to undertake to keep their wardrobe in order, are the most utterly helpless creatures on the face of the earth.

The charges are not high, and the satisfaction in knowing that buttons and tapes are where they should be, socks whole instead of holey, is very great. This darning combine is a most commendable enterprise, and the bright woman's head that inaugurated it should be crowned with laurel by the hosts of men who have longed for just such care, yet knew of no one outside of a wife who would undertake it.—*New York World.*

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 220 Powers' Block, Rochester, N. Y.

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14K.

HOME TOPICS.

SOME DISHES FOR LENT.—A pretty way to cook eggs is to break each one on a small china plate (a small preserve-plate will do), dust a little salt and pepper over them and set them in a hot oven until the whites harden. A little grated cheese sprinkled over the eggs before they are set in the oven is greatly relished by some, and makes a variety. Serve the eggs on the plates on which they have been cooked.

A delicate way to prepare salt codfish is to bake it with potatoes, eggs and milk. Soak one pound of cod over night in cold water; in the morning drain the water off and pour on enough boiling water to cover the fish, and let it stand on the back of the stove, where it will not boil, for half an hour. Drain again and press out all the water, then pick the fish to pieces, carefully removing all skin and bones. Have six good-sized potatoes boiled and mashed, add two tablespoonfuls of butter, the fish, four beaten eggs, a pint of new milk and a quarter of a teaspoonful of black pepper. Mix all well, pour into a buttered pudding-dish and put it into a hot oven until brown. Serve it in the dish in which it is baked.

Canned salmon, or any other cold boiled fish left from dinner, is nice prepared in the same way.

Omelet is a breakfast dish which will never lose its favor. Nearly every cook has a different recipe, and yet a really good omelet may almost be said to be the exception instead of the rule. After trying many recipes, the one I like best is as follows: Beat the whites of four eggs to a stiff froth, beat the yolks separately, and just before you mix them put a teaspoonful of butter into your pan, set it on the stove. Mix the beaten parts of the eggs lightly, and the minute the butter is melted and spread over the bottom of the pan, pour in the eggs. Do not disturb the omelet, except to raise the edge a little with a knife to see how nearly it is done. When the under side is a light brown, double the omelet half over and let it be two or three seconds longer; then turn the pan over and let the omelet drop on a hot plate. If the above quantity is not enough, it is better to make another omelet than to try to make a larger one. The omelet-pan should be very smooth, and it is a good plan to keep a pan for this especial purpose, never using it for anything else.

It is becoming a habit with many people to abstain from meat and a heavy diet during the forty days of Lent, for physical reasons, although they may not do it as a religious observance, and there is no doubt that the body is benefited thereby.

SCORCH SCONES.—A number of years ago I came across the following recipe, and preserved it in my kitchen scrap-book. It was said to be the original recipe of Tibbie Shields, and that she had frequently made these scones for Sir Walter Scott. Whether this be true or not, they are good enough for any one.

Take a quart of flour, a tablespoonful of butter, not melted, a large pinch of salt, a teaspoonful of soda, two teaspoonfuls of cream of tartar (I use two teaspoonfuls of baking-powder instead of the soda and cream of tartar), and two tablespoonfuls of granulated sugar. Sift the baking-powder into the flour and rub the butter into it, adding the salt and half of the sugar. With new milk mix a soft dough. Flour the board and knead the dough until it will roll out. Separate it into halves and roll each to an inch in thickness, making them round. Put them on tins, cut crosses in the top and bake until a light brown. Take the scones out of the oven and brush them over the top with the yolk of an egg beaten with a little milk, sprinkle over them the remainder of the sugar and put them in the oven long enough to dry.

These are good either warm or cold, and nice for the children's school lunch.

MAIDA McL.

HOUSEHOLD MISERIES.

There is a strong tendency in most women to keep and hoard old dresses "too good to give away," outside wraps, pieces of dresses, and even of silks, cambric and bits of braid and trimmings, hoping that they will come into use at that very indefinite time known as "some day." No doubt this is an excellent plan when it is not carried too far, but not a few houses are fairly lumbered up with savings of this sort, including old draperies, furniture coverings, hats and bonnets, which the economical housekeeper hopes will yet serve some useful purpose; but meanwhile they cumber the attic or storeroom, and are of no possible use except to attract and nourish buffalo-bugs and moths. The annual spring cleaning ought to be a clearing out of old rubbish, and sorting out and cleansing of the few things which the housekeeper really needs to save.

A NEW ENGLAND MIRACLE.

A RAILROAD ENGINEER RELATES HIS EXPERIENCE—THE WONDERFUL STORY TOLD BY FRED C. VOSE AND HIS MOTHER-IN-LAW TO A REPORTER OF THE BOSTON HERALD. BOTH ARE RESTORED AFTER YEARS OF AGONY.

(Boston, Mass., Herald.)

The vast health-giving results already attributed by the newspapers throughout this country and Canada to Dr. Williams' "Pink Pills for Pale People" have been recently supplemented by the wonderful cures wrought in the cases of two confirmed invalids in one household in a New England town. The radical improvement in the physical condition of these two people from the use of this great medicine is vouched for, not only by the eager testimony of the patients themselves, gladly given for the benefit of other sufferers, but also by the indubitable assurances of disinterested relatives and friends who had been cognizant of the years of pain and distress endured by the two invalids, and who now witness their restoration to health, vigor and capacity.

The names of these people, the latest to testify from their own experience to the marvelous restorative, tonic and healing qualities of Dr. Williams' Pink Pills, are Fred C. Vose and his mother-in-law, Mrs. Oliver C. Holt, of Peterboro, members of the same household, which is composed of Mr. and Mrs. Holt, and Mr. and Mrs. Vose, the latter a daughter of the Holts. The home occupied by the family is a cosy and neat looking two-storied house, situated on the top of a hill and surrounded by many of the natural attractions of a residence in the country. Mr. Holt is employed in the Crowell shoe manufactory of Peterboro, and Mr. Vose has for many years run the engine on the Fitchburg railroad trains between Winchendon and Peterboro.

Before entering upon an account of the long illness of Mr. Vose and his mother-in-law, which shall be given in their own words as taken by a reporter of the "Boston Herald," it will be well to give the exact reason for the coming together under one roof of the two families, as this fact has everything to do with the manner in which Dr. Williams' Pink Pills first came to the notice of Mr. Vose and the reason of their introduction into the family as a medical remedy.

Mr. Vose's wife had been in failing health for a number of years, her illness finally developing into a brain trouble, accompanied by intermittent paralysis of the tongue and lower limbs. Death had taken all her children, and the heavy affliction increased her bodily and mental infirmities to such an extent that her husband, himself an invalid, was compelled to take some means toward securing for her complete rest and freedom from all household care. To this end he gave up housekeeping, and took his wife to her parents' home, where her mother might care for her in her ailments. Mrs. Holt was herself suffering from various complaints brought on by complete nervous prostration several years ago, but her daughter's severer and more hopeless condition was the more urgent and more appealing case of the two, and so Mrs. Holt for several years has tried to forget her own disabilities in tenderly ministering to her stricken daughter.

In February last Mr. Vose was reading the weekly paper, when his attention was attracted by the account of a case of paralysis cured by the use of Dr. Williams' Pink Pills. The similarity of the case described to that of his wife at once aroused the deep interest of Mr. Vose, and he called his mother-in-law's attention to the published article. After long consultation they decided to send for the pills. The beneficial effect they had upon Mrs. Vose was marked. From being unable to stand she was so materially strengthened that she could walk without difficulty, and in other respects her condition was much improved. The beneficial results noticed in Mrs. Vose's condition from a trial of the pills caused both her husband and mother to consider trying them for their own complaints. They tried them on the principle that "if they don't cure they can't hurt," but before each had finished their first box they had felt such relief that they came to believe that the pills not only could not hurt, but were actually and speedily curing them.

To the "Herald" reporter who was sent to investigate his remarkable cure, Mr. Vose gave a detailed account of his long illness and subsequent recovery. He began his narrative by saying:

"I am not anxious to get into the papers in this or any other connection, but, as I wrote the Dr. Williams' Medicine Co., I have felt such happy results from the taking of Pink Pills that I am willing, if my experience will help any one else, to state how they benefited me. I am 37 years old, and 15 years of this time I have spent in railroading for the Fitchburg railroad on the Winchendon and Peterboro branch. For the past three years I have been engineer of the train which connects with the Boston trains at Winchendon. I have been troubled with a weak stomach from my boyhood. In fact, there never was a time in my remembrance when I was not more or less troubled from that source.

"Seven years ago, however, the complaint became greatly aggravated from the nature of my work and other causes, and I suffered greatly from it. My stomach would not retain food, my head ached constantly, there was a dimness, or blur, before my eyes most of the time, and my head used to become so dizzy I could scarcely stand. On getting up in the morning my head swam so I was frequently obliged to lie down again. I had a most disagreeable heart-burn, a continuous belching of gas from the stomach, a nasty coating of the mouth and tongue, and my breath was most offensive. I consulted physicians in Peterboro, and took their medicines for two years, but was helped so slightly by them that at the end of that time I gave up in discouragement, and let the disease take care of itself for a long time. I grew worse as time went on. I have been obliged to give up work many a time for a week or two, and have worked at other times when I ought to have been at home in bed. I have lost many months during the past seven years, and would have lost more only for the fact that I stuck it out and would not give up until I had to.

"My appetite then failed me, and about four years ago I began to notice a fluttering of my heart, which grew so bad after awhile that I could not walk any distance without a violent palpitation and complete loss of breath. The pains in my stomach, from indigestion, lasted two and three days at a time. I lost considerable flesh, and before long I noticed that my kidneys were affected. This came from my work on the engine, I know, as many railroad men are troubled in the same way. I had awful pains in the small of my back, and was obliged to make water many times during the day.

"I resolved to go back to the doctors again, though their treatment had done me no good before. I was told that medicine was no good for me, that what I needed was a long rest. I could not take too long a vacation, being compelled to work for my living, and so I kept along, taking what stuff the doctors prescribed, but feeling no better, except for a day or two at a time.

"Finally my legs and hands began to ache and swell with rheumatic pains, and I found I couldn't sleep at night. If I lay down, my heart would go pit-a-pat at a great rate, and many nights I did not close my eyes at all.

"I was broken down in body and discouraged in spirit, when, some time in February last, I was reading in the 'Montreal Family Herald and Weekly Star,' which we take every week, of the great cures made by Dr. Williams' Pink Pills for Pale People. I got a couple of boxes for my wife to see if she would be helped any by them, and then I tried them myself. I did not put much stock in them at first, but before I had finished the first box I noticed that I was feeling better. The palpitation of my heart, which had bothered me so that I couldn't breathe at times, began to improve. I saw that in going to my home on the hill from the depot, which was previously an awful task, my heart did not beat so violently and I had more breath when I reached the house. After the second and third boxes I grew better in every other respect. My stomach became stronger, the gas belching was not so bad, my appetite and digestion improved, and my sleep became nearly natural and undisturbed. I have continued taking the pills three times a day ever since last March, and to-day I am feeling better than at any time during the last eight years.

"I can confidently and conscientiously say that they have done me more good, and their good effects are more permanent, than any medicine I have ever taken. My rheumatic pains in legs and hands are all gone. The pains in the small of my back, which were so bad at times that I couldn't stand up straight, have nearly all vanished, and I find my kidneys are well regulated by them. This is an effect not claimed for the pills in the circular, but in my case they brought

it about. I can now go up any hill without the slightest distress or palpitation or loss of breath, and am feeling 100 per cent better in every shape and manner.

"They have been a saving of money to me, for since I began their use I have not been obliged to lose much time away from work. I am still taking the pills, and mean to continue them until I am certain my cure is a thorough and lasting one."

After talking with Mr. Vose at the depot, where his engine was in waiting, the reporter went to the house where Mrs. Holt, the other patient for whom the pills have done so much, received him and gave an extended account of her experience with them. Mrs. Holt said:

"I am 57 years old, and for 14 years past I have had an intermittent heart trouble. Three years ago I had nervous prostration, which left me with a number of ailments, for which I have been doctoring unsuccessfully ever since. My heart trouble was increased so badly by the nervous prostration that I had to lie down most of the time. My stomach also gave out, and I had continual and intense pain from the back of my neck to the end of my backbone. I went to physicians in Jeffrey, Newport, Alsted, Acton and here in Peterboro, but my health continued so miserable that I gave up doctors in despair and lost faith in medicine altogether. I began to take Dr. Williams' Pink Pills last winter, more from curiosity than because I believed they could help me, but the first box made me feel ever so much better. I have taken the pills since February last and they have made me feel like a new woman. The terrible pains in my spinal column and in the region of my liver are gone, and I believe for good. My palpitation has only troubled me three times since I commenced using the pills, and my stomach now performs its functions without giving me the great distress which formerly followed everything I ate. The pills have acted differently from any medicine I ever took in my life. I have tried everything—doctors' medicines, patent medicines, sarsaparillas, and homeopathic doses. In 14 weeks, three years ago, I spent \$300 for doctors' bills and medicines, and since then have put out as much more money, but the relief I obtained, if any, was only temporary.

"With these pills, however, the effects are different. They are not cathartic like other pills I have taken, but seem to act directly upon the stomach and liver without any loosening of the bowels. My sleep, too, has wonderfully improved since I began their use. For a long time before I took these pills I lost sleep night after night with my heart and pains in my back.

"My improvement in health is a source of remark on the part of those who have known how sick I was. My husband, who didn't know I was taking the pills, is delighted at the noticeable betterment in my health, and upon learning the cause of it urged me to continue the use of the pills. This impulse, however, is not necessary, as I have been too sick in the past not to fully appreciate the value of a remedy that has done me so much good. Dr. Williams' Pink Pills are certainly a grand medicine, and from my experience with them I can cheerfully and cordially recommend them to any one who is troubled with heart palpitation, indigestion, liver complaint and the many ills consequent upon nervous prostration."

Dr. Williams' Pink Pills are not a patent medicine in the sense in which that term is usually understood, but are a scientific preparation, successfully used in general practice for many years before being offered to the public generally. They contain in a condensed form all the elements necessary to give new life and richness to the blood, and restore shattered nerves. They are an unfailing specific for such diseases as locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, rheumatism, nervous headache, the after effects of la grippe, palpitation of the heart, the tired feeling resulting from nervous prostration; all diseases depending upon vitiated humors in the blood, such as scrofula, chronic erysipelas, etc.

They are also a specific for troubles peculiar to females, such as suppressions, irregularities, and all forms of weakness. They build up the blood and restore the glow of health to pale or sallow cheeks. In the case of men they effect a radical cure in all cases arising from mental worry, overwork or excesses of whatever nature. They are manufactured by the Dr. Williams' Medicine Company, Schenectady, N. Y., and Brockville, Ont., and are sold in boxes (never in loose form by the dozen or hundred) at 50 cents a box or six boxes for \$2.50, and may be had of all druggists or direct by mail from Dr. Williams' Medicine Company from either address.

The price at which these pills are sold makes a course of treatment comparatively inexpensive as compared with other remedies or medical treatment.

Our Sunday Afternoon.

COMFORT ONE ANOTHER.

Comfort one another;
For the way is growing dreary,
The feet are often weary,
And the heart is very sad.
There is heavy burden-bearing,
When it seems that none are caring,
And we half forget that ever we were glad.
Comfort one another;
With the hand-clasp close and tender,
With the sweetness love can render,
And the looks of friendly eyes.
Do not wait with grace unspoken,
While life's daily bread is broken,
Gentle speech is oft like manna from the skies.

Comfort one another;
There are words of music ringing
Down the ages, sweet as singing
Of the happy choirs above,
Ransomed saint and mighty angel,
Lift the grand, deep-voiced evangel,
Where forever they are praising the Eternal Love.

Comfort one another;
By the hope of Him who sought us
In our peril—Him who bought us,
Paying with his precious blood;
By the faith that will not alter,
Trusting strength that shall not falter,
Leaning on the one divinely good.
Comfort one another;
Let the grave-gloom lie behind you,
While the spirit's words remind you
Of the home beyond the tomb.
Where no more is pain or parting,
Fever's flush or tear-drop starting,
But the presence of the Lord, and for all his people room.

—Margaret E. Sangster.

MR. SPURGEON'S CHATS WITH HIS STUDENTS, OR JOTTINGS FROM AN OLD NOTE-BOOK.

SELECTED BY PASTOR ALFRED G. HASTE.

THE Bible is to make us know our ignorance as well as to give us light.

Faith can only read the first chapter of Genesis aright. We were not at the beginning, and we have not had the experience of world making.

Beauty and order will not satisfy God without fruitfulness.

We must have the revelation in the heart and the revelation in the book.

Don't give headaches instead of heart-aches.

To be a shining light we must have a heart burning.

There is no higher title than "sent from God."

If we leave the wolves alone we cease to be shepherds.

We are to burn, not amuse.

Baptist ministers don't like dancing, for the very fact that one of their number lost his head through it.

Our hearers must see that we firmly believe in what we preach. The most damning thing is for a preacher to preach the gospel as an actor.

If you can be silent, keep silent.

Some sermons seemed to be no good until the provision merchant wrapped them around his butter.

Make your sermons red-hot; never mind what the people say; we are not to go in for snowballing on Sundays.

Imitate the Salvation Army and go in with a smash; let us take some of their earnestness.

If we are not in earnest, it is all twaddle about getting the people to be earnest.

We must not be stuck-up fellows, when we will be everybody—God soon makes us nobody.

'Tis an awful sight to see a proud minister; far worse to see a proud student.

"They forget the dung-hills where they grew, And think themselves—the Lord knows who."

Fight unbelief with belief, and untruth with truth.

Preach experience from experience. Hearts and souls are necessary to touch hearts and souls.

The truths which have broken the preacher's heart will break the hearts of his hearers.

'Tis a grand thing when a man has the faculty for precipitating decision.

There are two styles of preaching; the first no one can understand but the preacher, the second no one, not even the preacher.—London Baptist.

ARISE AND BE READY.

As the silvery morning, with its dewy freshness and inspiring breezes, calls us to arise from our slumber and prepare to meet the rising sun, so the present prophetic daybreak is calling up the sleeping virgins to arise and shine, for, "Behold, the

Bridegroom cometh." And while the world is busy in its unbelieving course, let us be "as men who wait for their Lord."

The true and proper attitude of "the faithful in Christ Jesus" is to be that of "virgins" who are waiting for "the Bridegroom." They should be characterized by self-abnegation and unworldliness, "denying ungodliness and worldly lusts, and living godly, righteously and soberly in this present world." This habit will, of course, make them appear somewhat singular, and "men wondered at." Still, it will secure to those who thus walk a restfulness of spirit, a cheerfulness of heart and quietness of conscience to which those who follow "the fashion of this world" will be comparative strangers. Jesus will then give them his fellowship, and they will realize "the peace of God that passeth all understanding," and "the joy of the Lord will be their strength."—Rev. W. Frith.

THE KIND OF A WOMAN TO KNOW.

The woman with a loving heart is sure to look upon the bright side of life, and by her example induce others to do so. She sees a good reason for all the unwelcome events which others call bad luck. She believes in silver linings, and likes to point them out to others. A week of rain or fog, an avalanche of unexpected guests, a dishonest servant, an unbecoming bonnet, or any other of the thousand minor afflictions of every-day life have no power to disturb the deep calm of her soul. The love-light is still in her eyes, whether the days be dark or bright.

It is she who conquers the grim old uncle and the dyspeptic aunt. The crossiest baby reaches out its arms to her and is comforted. Old people and strangers always ask the way of her in the crowded street. She has a good word to say for the man or woman who is under the world's ban of reproach. Gossip pains her, and she never voluntarily listens to it. Her gentle heart helps her to see the reason for every poor sinner's misstep, and she condones every fault. She might not serve with acceptance on the judge's bench, but she is a very agreeable person to know.—Harper's Bazar.

GOD'S FOOTPRINTS.

A Frenchman who had won high rank among men of science, yet who denied the God who is the author of all science, was crossing the great Sahara desert in company with an Arab guide. He noticed, with a sneer, that at times his guide, whatever obstacles might arise, put them all aside and, kneeling in the burning sand, called on his God. Day after day passed, and still the Arab never failed in his supplications. At last, one evening as he rose from his knees the philosopher asked him, with a contemptuous smile:

"How do you know there is a God?"

The guide fixed his beaming eyes upon the scoffer for a moment in wonder, and then said solemnly:

"How do I know there is a God? How do I know that a man and not a camel passed my hut last night in the darkness? Was it not by the print of his feet in the sand? Even so"—and he pointed to the sun whose last rays were flashing over the lonely desert—"that footprint is not of a man."

THREE SIGNS OF CONSUMPTION.

An attack of Pulmonary Consumption is always preceded by three danger signals: The rattlesnake seldom strikes its fatal blow until after its note of warning has been given; so with Consumption; the attack of this dread and insidious foe is preceded by, First, Emaciation—loss of flesh without sufficient sick symptoms to account for it. Second, a Cough; slight, perhaps, "a mere habit," the patient says, which he "can and must prevent;" doubly ominous if continuing through warm weather. Third, Unequal Depression beneath the collar bones. Tubercles almost always invade one lung, and at its apex. This one soon contracts and the flesh above it shows a greater depression than over the other.

These are the signals. Where is the remedy? Will any drug supply it? Observation (and too often experience) makes you answer no. More than 20 years ago we said that our Compound Oxygen would help in a manner and to an extent far exceeding any other agent known to man. We say so still; but it is not our word only now. Scientists admit it; physicians prescribe and take it; and better still, thousands of people everywhere, stepping aside from the crowded path of booby failure, have tried it themselves, and are living to-day, glad to tell of its great power to rebuild the system, the gradual consumption of which it is that we call Consumption.

If a person has seen one or all of these signals; if he desires health rather than sympathy; restoration rather than amelioration; if he is so constituted that he can believe the evidence of others, we invite him to write us a plain statement of his case. We will send him, without any expense, an honest medical opinion, at the same time enclosing an account of the discovery of Compound Oxygen and of its mode of cure.

To be well informed on this subject has been life itself to many physically needy people. Address Drs. STARKEY & PALEN, 1529 Arch street, Philadelphia, or Chicago, San Francisco, New York, and Toronto, Ont.

Going to Buy a Watch?

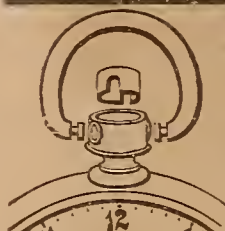
If so, buy one that cannot be stolen. The only thief-proof Watches are those with



BOWS.

Here's the Idea:

The bow has a groove on each end. A collar runs down inside the pendent (stem) and fits into the grooves, firmly locking the bow to the pendent, so that it cannot be pulled or twisted off.



To be sure of getting a Non-pull-out, see that the case is stamped with this trade mark. It cannot be had with any other kind.

Ask your jeweler for pamphlet, or send for one to the famous Boss Filled Case makers.

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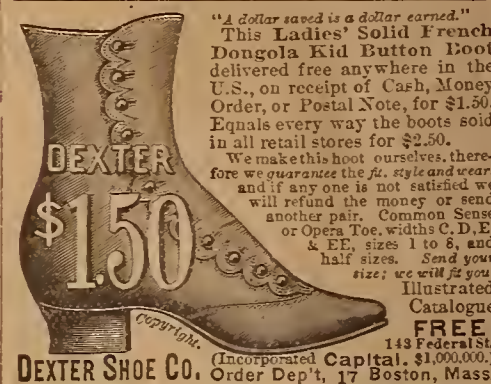
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Selections.

CROSSING THE BAR.

Sunset and evening star,
And one clear call for me!
And may there be no moaning of the bar
When I put out to sea:

But such a time as ocean seems asleep,
Too full for sound and foam,
When that which drew from out the bound-
less deep

Turns again home.

Twilight and evening bell,
And after that the dark!
And may there be no sadness of farewell,
When I embark.

For though from out our hourne of Time and
Place,
The flood may bear me far,
I hope to see my Pilot face to face
When I have crossed the bar.

—Tennyson.

A ROMANTIC WEDDING.

SEVENTY-FIVE years ago Dorothy Hope stood before the cheval glass in her own room at her father's house in New Rochelle dressing for her wedding. Suddenly she cried:

"Oh, you wicked creatures, are you, who were my schoolmates, willing to marry me to that wretch? That ugly, cruel, bad old man, that neither of you would marry to save your lives?"

Then the tallest said gravely:

"Pray, Dorothy, if you do not want to marry Mr. Pulsiver, why do you go on so far as to engage yourself to him?"

"My father bade me do it, Hester," said Dorothy. "Oh, indeed he did, but I did not care. I did not know what love was and the wedding-day was set and I met—"

"Go on," cried the girls in a breath. "Whom did you meet?"

"Charles Pulsiver," sobbed Dorothy.

"But he is your bridegroom," said the other girls.

"No," said Dorothy. "It is old Mr. Charles Pulsiver that I am to marry. It is his young cousin Charles whom I met and loved, but he promised to save me, and the hour is almost here and he has not done so. Oh, pity me. I am like a lamb going to the slaughter, and you do not care."

At this moment something struck the window. Dorothy started up with her cheeks aglow and threw up the sash. A piece of paper wrapped about a stone lay upon the window-sill.

In a trice she untwisted the paper and read the contents. They were:

Your bridegroom will not come to-night. Don't retire until you hear this signal once more.

CHARLES.

She thrust the note into her pocket and turned to the bridesmaids.

An hour later there they all sat, and the door opened and Mr. Hope entered.

"Be calm, dear child," he said. "Mr. Pulsiver has not yet arrived."

At midnight the bridesmaids kissed the bride, who had long ago changed her wedding dress for another, and left her.

And meanwhile, at the window, the girl heard the signal repeated. She opened the sash once more, found the stone and paper as before, and read these words:

As soon as you can, come to me at the side gate under the sycamore.

CHARLES.

* * * * *

"It's two o'clock; what can any one want out so late in such weather?" said old John who kept the toll-gate, to his wife. "Hark to them, hard and fast over the bridge, and harder and faster over the road. If I don't get out quickly, they'll cheat me out of my twopence."

He stepped out into the night, holding his lantern high above his head. All he did was to show himself to some one he could not see, who, as he shouted, "Toll-gate, twopence," cried:

"Here keep the change," flung him a coin that struck his breast, and passed on.

Meanwhile the generous horseman had only ridden a little way beyond the gate and there paused.

"There's some one following us," he said to the girl who rode behind him, clasping him about the waist with both arms, "and we had best stand here under the trees till he goes by. If we are parted now it may be forever."

It was the young cousin, Charles Pulsiver, who spoke, and Dorothy Hope who answered:

"It may be my father, Charles. If he finds me I am undone."

From that spot they could see the tollman's window grow bright as he brought out his lantern and cried:

"Toll-gate, twopence!"

"Here it is, Mr. Tollman!" cried an amiable voice, deep-toned but soft.

"Poor old cousin, he is tied to a big tree in his park," said Charles, "where a very fierce highwayman in a big mustache overtook him as he rode to his wedding. Meanwhile the mustache is in my pocket. However, all is fair in love and war."

The toll-house keeper, after a pause, was speaking:

"We're very plain folk; but if your reverence could make up your mind to stay here all night, better than an inch of steel under the ribs, and a hearty welcome."

"As I am unarmed and am a man of peace, I am glad to accept your invitation," said the clergyman.

They heard him alight, and saw the old man with his lantern lead the horse to the stable. Then all was silence.

"Dorothy," said Charles in a whisper, "heaven favors us. Here's a parson to marry us."

"Say nothing, but let me tell him what I please," said the young man, as he sprung from the saddle, helped Dorothy to alight, and rapped on the toll-house gate with the handle of his riding-whip, crying:

"Hello, hello! Have you seen a clergyman ride through your gate?" he asked, as John appeared.

"The Rev. Timothy Norroway would have ridden through," replied the old man, "but the road is beset by highwaymen to-night and I begged him to abide here."

At this Mr. Norroway himself walked to the door.

"Sir," said Charles, "you went this evening to marry a couple at the house of Mr. Hope, and the bridegroom did not show himself. Have you ever seen Charles Pulsiver?"

"Never," said the clergyman. "The bride's father is my friend."

"Sir," said Charles, "you know Miss Dorothy Hope?"

"From childhood," replied the clergyman.

"This is my card," replied the young man, drawing one from his pocket.

"Mr. Charles Pulsiver," said Mr. Norroway, reading the card; "I am glad to know you, and to see you, dear Miss Dorothy."

"Sir," said Charles, when they had shaken hands. "Imagine the feelings of a man of honor, through no fault of his, kept from his own wedding. A highwayman tied him to a tree. I have ridden after you, this angel consenting to ride with me, hoping you would not refuse to marry us even yet. Happily, I have overtaken you here, where John and his wife can be our witnesses, if you will kindly accede to my request."

"I shall be very happy to do so," said Mr. Norroway, "and to turn your misadventure into a romance."

They stepped back into the little parlor. The ceremony was performed at once, and the bridegroom had just saluted his bride when, clattering over the bridge and along the road, came two other horses, with riders who spurred them on in hot haste.

"Tollman John!" cried a voice they knew to be Mr. Hope's. "Hello, Tollman John, hello!"

John flung the door open. Mr. Hope and the elder Mr. Pulsiver stood there.

"There is trouble at my home," said Mr. Hope. "Has any woman ridden through the gate to-night? I am looking for my daughter."

"My dear friend," said the Rev. Timothy Norroway, advancing with a beaming smile, "it is all right. Your daughter is here. I have just married her to that gallant little gentleman, Mr. Charles Pulsiver, who would allow nothing to keep him from his bride."

* * * * *

The elder Mr. Pulsiver understood the situation and made the best of it.

"Let me be the first to congratulate you," he said, and the two men shook hands.

What was in the heart of the elder he wisely kept to himself.

SIXTEEN WAYS OF KEEPING WELL.

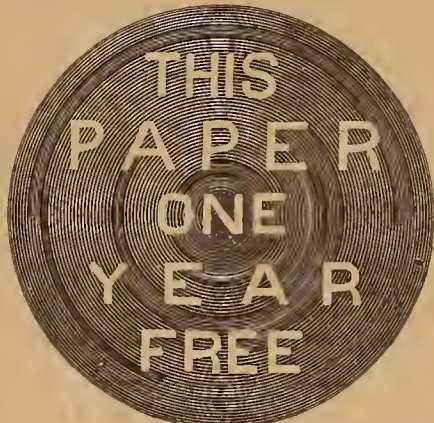
At a recent meeting of the Twilight club the question for debate was, "How Do You Keep Well?" and twenty members of the club gave their answers to it:

1. Keeps well by taking Turkish baths.
2. By horseback exercise.
3. By resisting disease and avoiding the doctors.
4. By keeping clear of colds and never working when tired.
5. By obeying all the laws of hygiene.
6. By open-air exercise and oatmeal porridge.
7. By keeping the mind content and taking a month's rest every summer.
8. By boating.
9. By never thinking about illness.
10. By athletic exercise and refraining from overwork.
11. By moderation, both in work and play.
12. By daily sponge-baths and outdoor enjoyment.
13. By horseback riding, cold baths and discreet dieting.
14. By thorough mastication of all food and by genial companionship.
15. By heeding the doctor.
16. By guarding the health in such a way as to give promise of a hundred years of life.

MEN WHO ARE TO BE PITIED.

1. The man who has to walk, in order that the whisky seller may ride in a carriage.
2. The man who has to go ragged, bleary-eyed and red-nosed, in order that the bar-keeper may wear good clothes and sport diamonds.
3. The man who has to take the very blood out of his veins to help keep in motion the machinery that grinds up good corn and makes it into bad whisky.
4. The man who has to go without butter and live on dry bread and cold liver, in order that the beer peddler may have porterhouse steak and hot coffee.
5. The man who has to take bread out of his mouth to help put a grand piano into the home of the devil's adjutant-general, who supplies him with bitters.
6. The man who has to steal from his own wife and children in order that the family of the political philanthropist, who puts parties in power and men in the ditch, may continue to fare sumptuously every day.

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Philadelphia, Pa., or Springfield, Ohio.

THE LITERARY CONTEST.

2,243 subscribers entered the missing word contest, and of this number 388 sent the correct word, which is "CARRY."

The sentence was taken from Spurgeon's "John Ploughman's Pictures," and reads as follows:

"When passion has run away with a man, who knows where it will carry him."

According to previous announcement, four fifths of the receipts are equally divided among the 388 subscribers who correctly supplied the missing word, netting 46 cents to each one, and this amount has been mailed to them. The number of successful contestants is so large that we have not room to publish them.

The result of the second contest will be published in our next issue.

Our Miscellany.

THE requisites of a happy home, as suggested by a woman at her golden wedding, are: First, a man; six months' experience in boarding before housekeeping is attempted; children taught to work a little regularly each day from five years of age, and allowed to play freely at home; a nap for the mother, if no longer than fifteen minutes, every day, and connection with some social organization outside the house. This prescription has been thoroughly tested by the giver.—*Housekeeper's Weekly*.

THOSE gossamer-like napkins, used in some cheap restaurants, cost rather less than a quarter of a cent each, and, all things considered, are cheaper than the more durable coarse linen which they replace. Their logical accompaniment would be those cheap wooden chop-sticks, served in native Japanese and Chinese restaurants and destroyed after once being used. As evidence of sincerity, they are presented to the customer in a block, but sawn so nearly asunder that he breaks them off from their fellows as easily as one does matches that are sold in like condition.

THE fact that calcium chloride has an affinity for moisture has lately been taken advantage of for preventing rust upon fine cutlery and edge tools. The arrangement devised for this purpose is of simple character, and, it is said, may be satisfactorily employed not only by dealers in iron and steel products, but by physicians, housekeepers and others, in absorbing moisture in places where dampness is liable to injure instruments, cutlery, or fine textile fabrics, etc. In practice, a bottle with a glass funnel is placed in the case with the goods, and the funnel partly filled with lumps of calcium chloride, every trace of moisture being speedily absorbed; the arrangement of the bottle and funnel permits the liquefied portion of the calcium chloride to trickle from the funnel into the bottle drop by drop, leaving the salt exposed, and in this way it continues active until it entirely dissolves. The method is not only simple and effectual, but, of course, quite inexpensive.

THE EMPTY CRADLE.

"I was called on once to sell by auction a lot of household furniture belonging to a man and his wife who had been married four or five years. All I knew about it was that a death somewhere necessitated their removal from my town, and as they had no money, they were compelled to sell their effects to get enough to move on. Well, I was having a picnic in my young and foolish way, gadding and bantering and making brilliant and witty side remarks on the articles as they came under the hammer, so to speak, though I don't remember ever having used a hammer or seen any other auctioneer use one," said an auctioneer to a *Detroit Free Press* reporter. "After I had disposed of a lot of stuff, a cradle was put up. There were several young men of my acquaintance in the crowd, and I smiled at them as I turned the cradle around and began to rock it, humming a lullaby as I did so. 'Empty is the cradle, baby's gone,' I said, and was going on to say something else to get a laugh, when I happened to look down into the face of a woman close to the platform on which I was standing. She was dressed in faded black, evidently given her by some woman larger than she was, and there was a look in her eyes and a tension of the lines across her forehead and a pitiful weakness about her quivering lips that made me stop. She stood close to the platform, and the crowd was all at her back, so they had not noticed her. She didn't speak, but as I stopped she looked up at me with the tears starting, and lifting her hands in a mute remonstrance no words could describe, she gave a great sob of agony and turned away."

"I didn't know," was all I could stammer in apology. And I didn't know that it was her baby's cradle I was selling, and because the cradle was empty her heart was broken and she could no longer live in the house that the baby had left."

The auctioneer was feeling his story visibly. "No, my boy," he went on, "I didn't know, nor did the crowd, but they all did pretty soon, and I told them a story that had no fun in it for any heart there, but it took just the same, and I got \$150 for that cradle before I was done with it, and then gave it back to the poor young mother."

HOW SPONGES ARE GATHERED.

Arrived at what he fancied may prove a profitable ground, the captain of a spouting schooner sends out a boat to investigate, meantime standing off and on until a discovery is reported. Then all hands, save only the cook, or if she is a large vessel, the captain and cook, tumble into the small boats and the fishing—if fishing it can be called—is begun.

The vessel has towed astern just half as many boats as she has men in the crew, and now two men are assigned to each boat. One of them stands well aft and sculls with a long oar, while the other bends low over one of the gunwales in a most constrained position, and with head buried in a water-glass, eagerly scans the bottom as he is moved slowly over it. The water-glass is simply a wooden bucket, having no bottom, that is held an inch or so below the ruffled surface, and these clear waters plainly reveal all submerged objects to a depth of forty to fifty feet. As a further aid in overcoming ripples or moderate waves, each small boat is provided with a bottle of oil so hung over the bow as to slowly drip its contents into the water.

Through this magic glass the observer sees darting fish, richly-tinted sea-fauna and feathers, branching coral, gorgeous anemones, bristling sea porcupines, and the myriad other curious tenants of these tropic waters. While seeing these he makes no sign, until a small, dark object that, to the untrained eye, differs in no respect from the loggerheads surrounding it, comes within his range of vision. Then, without removing his gaze, he reaches for the lough-handled sponge-hook, or rake, lying behind him, and using it with one hand, quickly tears from the bottom a black, slimy mass that he triumphantly pronounces to be a sheep's wool or grass sponge of the first quality.—*Scribner's Magazine*.

LEGEND OF THE TEA-PLANT.

Do you know how the tea-plant came to grow? A very lovely Chinese maiden loved with all her soul an equally beautiful Chinese youth; but, alas! she had a rival. However, he plighted his troth to her and all went merry as rice and firecrackers could make it. Just before the wedding the beauteous youth laid himself down under a tree to take a nap. He looked like a picture on a screen. His beauty was too much for the wicked girl who also loved him, but who was not to be his bride. So she determined to take away some of his good looks. His lashes curled on his cheeks like a bang newly done by a French hairdresser. Going up to him, she immediately cut them off. When his own, his true love, saw him after the accident she said: "Can this be you?" and he said it was. Then he told of the wicked one, and they both prayed to the gentlest of Chinese gods to finish him up and make his eyelashes grow again, and the Chinese god, being economical, said: "The ones you have lost shall not be wasted; go and plant them, and from them shall spring a tree that shall delight all mankind." And they did as he told them, and at the wedding they had tea from the youth's eyelashes, and the wicked one wept and was beheaded.—*Philadelphia Times*.

SHIFTED THE BALLAST WITH THE SCENERY.

What a lot of things depend on the point of view. I was on a steamer up the lakes last summer, and while down on the lower deck one morning smoking a cigar, my attention was drawn to a big and tough-looking roustabout, who was engaged in what appeared to be a very aimless employment. He would sit chewing tobacco a few minutes; then he would jump up and commence rolling three or four very heavy casks across from the port gangway to the starboard gangway; then he would sit down and chew away reflectively, till all of a sudden he would hurriedly jump up and roll the casks back again. The steamer was going up the Soo river. After watching the performance for some time, I asked him what he did it for.

"Well, y' see, mister," he replied, "when there's nice scenery on that side, I roll de ballast on dis side, and when de scenery is on dis side, I roll dem back agin."

It appears that when there was an object of interest on one side of the boat, the passengers all crowded over, and ballast had to be shifted to keep the steamer trimmed.—*Hamilton Spectator*.

HELLO, THERE, BUNKER HILL!

Wendell Baker, of the American Telephone and Telegraph company, made the first test the other afternoon, at the offices on Quincy street, of the new long-distance telephone connecting Chicago and Boston. The experiment was made in the presence of a large number of prominent citizens and members of the press. The instruments worked like a charm, all the words being perfectly understood. As soon as it was assured that the trial was a success, twenty receivers were connected, and the visitors were treated to a vocal solo and a national hymn, played on a cornet at the Boston end. All the notes were perfectly audible, even to the softest. Quite an interesting conversation was kept up for some time between the two cities in relation to the weather and other points relating to the business interests. The telephone will be at the disposal of merchants who desire quick correspondence, and will do away, to a great extent, with the telegraph service.—*Chicago Times*.

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The shape is that of a lengthened Japanese gown with immensely wide sleeves, open at the wrist and having a broad, turned-back piece which shows the lining. The robe is corded all around, and has a very wide, flatly-laid collar, under which there is a cord with tassels, to be knotted loosely. The sole purpose is comfort, and it is said of this robe that it is so comfortable that it puts one to sleep.—*Domestic Monthly*.

WHAT IS YOURS?

Did you ever think of your pet economy? Nearly everyone has one. For instance, there is the man, the very reverse of uiggardly, who will race from library to hall and from hall to drawing-room, to get the full value of a sulphur match. A stung finger, or a smutch on the carpet, is a minor matter compared to the major economy of one match to three burners. Then we all know a woman caught in a shower will ruin ten dollar's worth of feathers rather than indulge in a fifty-cent cab. It is these little pin-prick economies which contrast so oddly with lavish expenditures.—*Boston Traveler*.

LADIES IN DENMARK.

Ladies in Denmark are continuously widening their modes of earning a livelihood. One or two ladies are doing very well as consulting dairy chemists. Several ladies have either founded important schools or taken over the management after their husbands' death. Among these schools are one or two which rank with the best high-schools, and which have the right of sending students to the university. A Danish lady has recently, being duly qualified, commenced business as a dentist.

DO NOT WORRY.

I lately saw a woman who looked twenty and said she was forty. She was born and bred in poverty and had worked hard all her life, yet she had the whitest of teeth, a slim, pretty figure and a milk and rose complexion, with a face as plump and as smooth as that of a girl of sixteen. "How on earth do you do it?" I asked. "Well, I never worry," she answered. "If anything troubles me I think first whether I can remedy it. If not, I throw it away from me like a heap of old clothes, and that is the end."—*Eliza Conner, in Star Sayings*.

WHY A TELEGRAM SHOCKS.

"It always shocks me to receive a telegram!" she exclaimed.

"Do it, really?" exclaimed her uncle from Stump Hollow. "Maybe they ain't keeful ter take all the 'lectricity out'n 'em?"—*Washington Star*.

Tramp (to Salem girl)—"Can't you give me a cup of coffee?" Salem girl—"No, I have only cups of china. I can give you some coffee in a cup, however."

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HOW SHE TOOK IT.

Eunice is a bright little girl with a taste for the stage, and some time ago she was one of a lot of children in kermess dances. It happened that all of the children's dances, except the particular one in which Eunice took part, were encoired, and her mother felt some anxiety that Eunice would feel the slight. She was ready with some good excuse when Eunice should appear, but there was no need for it. "Oh, mamma," she exclaimed, as she rushed to her mother all excitement, "Ours was the best of all. All the others had to do theirs over again and we didn't."—*Detroit Free Press*.

ADULTERATIONS OF COFFEE.

The lovers of Mocha or Cordova coffee will be interested in knowing that, according to the most recent authorities, the adulteration of coffee is a very common thing. Among the most common methods employed are the admixture of coloring matters; polishing and burnishing of cheap grades to give them a better appearance; the admixture of Swedish beans, which look exactly like the genuine article; and, in the case of roasted and ground coffee, the addition of chicory, beans, peas, corn, rye, acorns, the shells of almonds and other nuts, burnt sugar, pea hulls, and steaming to increase weight.

Farm Cleanings.

THE FARMER'S GARDEN.

THE farmer's garden should be different from the village garden or the market garden. It should be much more extensive than the first and need not have so much care to have the very earliest possible vegetables of the latter. The farmer and his family have the extensive grounds, the time to plant and cultivate and much of the needed machinery. I have never been a market gardener especially, though I have sold much surplus stock and know something of the demands. The FARM AND FIRESIDE is fortunate in having such a thorough gardener as T. Greiner for regular department editor and contributor. His "How to Make the Garden Pay," is one of the frequently consulted reference-books in my library. So there is but little occasion for us to step into the FARM AND FIRESIDE market garden field, but I do want to stir up my brother farmers as to their garden.

The farmer ought to have the best of the earth's products, and he can have them if he will prepare his soil aright, fertilize it properly, plant good seeds of vegetables adapted to his soil and climate, and then give the necessary cultivation and care. There are many who do this, and their tables are supplied the year around with the best, and fresh from the garden and nearly so from a good storage-room. To these some of my suggestions will not apply.

But there are many otherwise good farmers who have gardens that are all the way down, from fair to very poor, and some who have none at all. They are of classes that are so engrossed with money-getting with stock or some other branch of husbandry, that they have not time to enjoy themselves or the luxuries of a good garden, down to the ne'er-do-well, to whom garden making is too much of a task. We can scarcely expect to reach these extremists yet, but the great mass of them only need a little stirring up and the present gardens will be greatly enlarged.

We believe the greatest drawback to the garden is its almost universal cramped location. The farmer used to plowing, harrowing and cultivating in long rows dislikes the work of turning every five rods, lifting the heavy plows and having to watch so carefully for the small fruits growing at either end and sides. Now, if this is the condition of your garden plot, we are going to advise a change, but not an abrupt one. It is no doubt a rich spot—most gardens have been made so—and you can raise under difficulties good vegetables, but we will advise taking up, or just now lay your plans to remove the small fruits from the ends and lengthen the garden very much; have long rows whether you cultivate by horse or hand cultivator. The old plot should be retained for the smaller vegetables and the extension for potatoes, sweet corn, vines, etc., until it can be brought into finer condition. The small fruits to be removed should be put in similar long rows, and if convenient may be alongside the vegetable garden; those remaining will furnish supply until the new part is in full bearing.

Now, with this arrangement, when fully consummated, the regular farm teams and machinery can do nearly all the work, only needing the garden drill and the garden cultivator for the smaller vegetables. Now is the time to study over the situation and plan for next year's garden. With many no work can be done now, though in this section we can disk or plow our ground in these first days of the new year. Doubtless many FARM AND FIRESIDES are taken among the intelligent people of this newest Oklahoma, and we shall advise them to thoroughly cut last summer's sod, for this is all we have, with the disk several times during the winter. Here is the plan pursued at our experiment station. December 2d, the sod was broken; 25th, disked four times; February 2d, plowed again; then disked four times, and then harrowed with a sixty-tooth harrow.

As many have spring and summer breaking, and we have various kinds of sod—from the tough bluestem to the loose mesquite—as much working may not be required for all; but we will not go wrong to advise that it be finely and deeply pulverized, and then it will hold the winter moisture. Prepare it at once, and again.

The next step for all is the stock of seeds. Make out a list of what you need. Make it

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a generous as to kinds, covering the whole year if possible in using fresh and from storage. As to many varieties, that depends on the time you are willing to devote, a large number taking much time in various ways. The same as to novelties. If you have the time, room and means, and delight in having new things and in experimenting as we do, you will want many of them. But for profit, select the fewest kinds that will cover the full season, and then plant liberally. Order now of reliable seedsmen what you find you have not in stock from your own saving. If any kind does not grow to perfection in your section, it will pay you to throw away your own seeds, and buy from where they are produced to the best. If the seedsman defrauded you last year by sending that which was not true to name, look for an honest one this year. Get them in stock before the rush on the farm, or in the seed-house.

J. M. RICE.

ABSORBENTS.

Absorbents are absolutely necessary to economy to successful farming. The farmer who allows his liquid manures to run to waste is not a progressive farmer. He does not waste from spigot; he wastes from the bung-hole.

The best manure is the liquid manure. To disregard it is almost like throwing away the ear of corn and keeping the husk. The liquids must be saved, but how? Every farmer cannot have a cemented floor in the cellar sloping to a central basin; at least every farmer will not have such an arrangement, although it would pay for itself and declare larger dividends than bay-windows or fancy cupolas.

Why, there are farmers who not only do not attempt to save the liquids, but try to get rid of them. In some stables holes are bored in the planking to allow the liquids to escape to the cellar to run into the yard and into the adjoining field.

The choicest way to save liquid manures is by absorbents. The stable floor should be tight—tight as it can be. Muck is the best absorbent—the very best. It is a rich fertilizer in itself, and with the liquid manures is a fertilizer of great value.

Sawdust is the popular absorbent where it is easily obtained, but the best farmers declare that sawdust containing resin should not be used. It is not definitely decided that pine sawdust is injurious to plant growth, but the fact that nothing grows under a pine-tree, while shrubs, vines and other trees grow under other trees, leads many farmers to think that at least that pine sawdust is no help to vegetation. Sand is another favorite absorbent, and a farmer with a good sand bank will find it more profitable to use it for an absorbent than in sending it to mortar-beds.

If sand, muck or hard wood sawdust cannot be obtained, then use loam. Another absorbent, incidentally, is corn stalks. They are often fed to cows uncut. Then the butts go to the manure pile where they tangle up the shoveler in the spring when he is getting out manure. If the stalks be cut into three or four inch lengths, they become good absorbents, and do not clog the way when the manure is carted out in spring. The pith in the stalks takes up a good deal of liquid.

Whether used as absorbents or not, the stalks ought to be cut. The mangers are kept clean with less work. The cut stalks may be thrown back to the rear of the stalls, there to take up the liquids, and thrown out on the pile or dropped into the cellar, to hold them till deposited in the earth.

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Gleanings.

"KEEPING COMPANY."

Sweet, homely phrase so often spoke
Among the kinder country folk,
When youthful love they smile to see—
"These two are 'keeping company.'"

In fuller and in higher sense,
Through years of rich experience,

Dear love, 'tis true of you and me—
We've kept each other company.

In joy we've sought each other's eyes
To share the gladness and surprise;

In pain, life's utmost test of ill,
Our hearts have clung together still;

In absence—word with anguish fraught—
We have kept company in thought,

And learned that leagues of distance may
Serve but to spur love on its way.

In death—I pause with bated breath
Before the mystery of death.

Yet love is great! I seem to know
That where thou goest I shall go;

And in God's great eternity
Our souls shall still keep company.

—New York Bazar.

SEVERAL KINDS OF BATHS.

I AM not quite as amphibious as some of my friends, for there is no question but weak children can be soaked into invalidism. Warm baths are always dangerous for those whose vital grip is rather weak. But a stout, solid chap needs a good soak once a week. Cold bathing is equally dangerous, except to vigorous constitutions. It is peculiarly important to bathe in comfortable rooms. The passion for shocking the system by rough usage is passing away, fortunately. You cannot harden feebleness by abuse. Pounding the chest, and wearing thin clothes, and bathing in ice-water were popular follies of a kind. Let the room be comfortable and the water temperature be moderate; then rely on abundant friction.

But dry bathing is equally important. I have found nothing better than coarse, woven mittens. Each member of my family is supplied with a pair to use for a dry, hard rub all over, just before jumping into bed and on rising in the morning. Persons troubled with insomnia should adopt this plan, and by all means avoid a wet bath. In the night, if not sleeping soundly, rise and take another dry bath. The delicious feeling well repays for the exercise, apart from the wholesome consequences.

Then I add, as indispensable, a sun-bath. Most people who are not outdoor workers do not get enough sunshine. I have a window so arranged as to get the morning's glow, and there, inclosed by curtains, I sit clothed in little but sunshine. It is an attachment easily accorded to all country and suburban houses. The sun, moderately applied to the skin, soothes nervous pain and irritability as nothing else will. If you are troubled with headaches, get in the sun oftener.—*Mary E. Spencer, in St. Louis Globe-Democrat.*

STOOPING SHOULDERS.

Apropos of round shoulders, I decided the other day as I sat in a great public gathering, drawn from all parts of the land, that what we need most is not more currency, or less taxes, or a new banking system, but a law to enforce sitting up straight. Take one hundred Americans—men and women—and you could not find enough good shoulders among them to make up a table at whist. This defect of carriage used to be thought peculiar to the rural districts. It is not so. City people show it less, but this is due to the cunning of their tailors, and not to any virtue of their own.

I am opposed to meddlesome legislation, but I should welcome the appointment of officials who would go about and compel the populace to sit and stand erect, as the old worthies of the Puritan meeting-house compelled the congregation to keep awake. If such a statute were enacted, in two generations we would not know ourselves—or rather, our descendants—so great would be would be the improvement in health, physique and dignity.—*Kate Field's Washington.*

CATARRH CURED.

A clergyman, after years of suffering, from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self-addressed stamped envelope to Prof. J. A. Lawrence, 83 Warren street, New York, will receive the recipe free of charge.

OUR LITERARY SPINSTERS.

"How many of the women who write to-day are married!" remarked a magazine editor, through whose hands pass many of their manuscripts. Yes, true, but cannot one call to mind as many others who are not? In fact, the list of American spinster writers is a long one. Foremost in journalism there is Kate Field, who is too much in love with her work to think of getting married; then there is Gail Hamilton, who has always written from a standpoint of almost masculine independence. Sarah Orne Jewett, who wrote "A Country Doctor" and "Deep Haven Sketches," is still unmarried. So also is Miss Nora Perry, who belongs by birth to Providence, R. I., but makes Boston her headquarters. At the Hub also is Miss Louise Imogen Guiney, remarkable for her deep-set eyes and stupendous memory, filling her conversation with facts, quotations, metaphors and stories, to the dismay of all who are not good listeners. Constance Fenimore Woolson, Edith M. Thomas, Grace King, Octave Thanet, Lucy Larcom, Charles Egbert Craddock, Emma Hooper and Miss Wilkins increase the number.

SAYINGS ABOUT WOMEN.

Remember, woman is most perfect when most womanly.—*Gladstone.*

Earth has nothing more tender than a pious woman's heart.—*Luther.*

All I am, or can be, I owe to my angel mother.—*Abraham Lincoln.*

Disguise our bondage as we will, 'tis woman, woman rules us still.—*Moore.*

The society of ladies is the school of politeness.—*Montfort.*

Heaven will be no heaven to me if I do not meet my wife there.—*Andrew Johnson.*

Even in the darkest hour of earthly ill woman's fond affection glows.—*Sand.*

No man can either live piously or die righteously without a wife.—*Richter.*

Eternal joy and everlasting love there's in you, woman, lovely woman.—*Otway.*

Women need not look at those dear to them to know their moods.—*Howells.*

Yes, woman's love is free from guile and pure as bright Aurora's ray.—*Morris.*

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A DOZEN DON'TS.

Don't try to grow choice roses in the house if you have never made any study of the habits and wants of the rose.

Don't begin with roses if you have never had any experience growing plants in the house.

Don't try to get along without a good thermometer in the room in which your plants are, and don't forget to take the trouble to look at it once in awhile. One cannot succeed without paying some attention to the temperature of the rooms in which they are kept.

Don't forget that the midwinter sun coming through glass is too hot for some kinds of plants, and that they should be kept out of it in the middle of the day.

Don't give all your plants the same amount of water. Find out through inquiry and observation the needs of the plants in this respect.

Don't buy plants you never heard of before simply because the advertised pictures of them are so pretty. Novelties are often the destruction of all the enthusiasm of young flower growers.

Don't try to force your plant too much. Nature works in her own way, and forcing plants often kills them.

Don't expect your flowers to bloom in a week or two, nor yet in a month after you have potted them. It takes some plants several months to adjust themselves to the conditions of life in a flower-pot.

Don't try to grow lilies-of-the-valley or gladioli in the house. Not one person in a hundred can do it excepting under conditions that do not exist in many houses.

Don't put a year-old rose-bush or a tiny geranium into a ten-inch pot. A six-inch pot is big enough for the rose, and a three or four inch pot is large enough for the geranium.

Don't talk about your "bad luck" if your flowers are not doing well. Ten to one your "bad luck" is simply a bad condition of the soil in your flower-pots, or a lack of proper care of your plants.

Don't try to grow flowers if you are lazy. They must have the care that comes from energy and love of plants, and it must be a regular and not spasmodic sort of attention.—*Success with Flowers.*

NATURE'S UNIVERSITY.

In cases where, like the farmer, the occupation covers many things, a full and varied education may be secured. He may follow in the traditional ruts, and become, as he often is, a very stupid creature; but the farm is a veritable university to one who will so regard it.

Whatever the domestic animals have to teach—and the psychologists are now telling us that they have much to teach in mind and morals; whatever soil and dew and rain and heat and winds do, and what are the relations to harvests; what lessons are contained in the season; what reverence is hidden in the miracle of growth; what tender and inspiring mystery and holy awe are involved in the reproduction of life put under his hand; what long books ahead, and careful combinations to keep his little universe or university in operation—these things go to make the farm what it actually proves itself to be, and more and more as time goes on, a veritable school for the training of its owner.

A good share of the farmers of the country may be properly regarded as educated. They have the ability to think, to plan, to make combinations; they have the self-respect, the executive ability, the fertility in resources, the character, which are the fruits of education.

TO PREVENT CRYSTALS IN JELLY.

To make jelly of either wild or cultivated grapes, after cooking and straining the juice, can it air-tight in glass cans or bottles. Let it stand one month or longer, as convenient. When ready to make your jelly, strain the juice again, and proceed as usual in jelly-making. Other things being right, the jelly will be clear and free from "glass-like crystals."

The hair is now frequently seen dressed in the very high and perfectly smooth and upright loops which were seen at the time of the Directoire. There is a very high loop in the center rising straight at the back of the head, and having on the left a smaller loop, also set upright. On the right a loop still smaller lies upon the head, while a double coil holds the loops in place. The shape is not that of puffs, but more resembles loops of smooth ribbon in this style of coiffure, hence the use which we make of this word as more clearly descriptive of the effect produced.

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The personal qualities of James G. Blaine made hosts of staunch and true friends. Public life

brought him some enemies, but with his death all party feelings and differences of opinions are eagerly laid aside and all unite in honoring his name.

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THE MILL is a handsome panel picture, 10 by 20 inches in size, a truthful reproduction of the celebrated painting of that title that is now one of the priceless art treasures in Rome. In the foreground is a group of musicians, with a youth and maiden dancing on the greensward, a translucent river flowing beyond, spanned by a bridge of many arches. On the left is a round-towered watermill among the shadowy groves, and the distance is closed by a blue and hazy mountain range. It was executed by the famous artist, Claude Lorraine, upon a commission from Prince Pamphili, in the 16th century. The original painting could not be bought to-day for many hundred thousand dollars.

MEMORIES is a beautiful upright panel, 10 by 20 inches in size. The picture illustrates the poem of the same title, by the loved and honored poet, John Greenleaf Whittier, whose mission of song was recently ended in this world. It shows a beautiful maiden,

"A seeming child in everything,
Save thoughtful brow and ripening charms."

The perfect pose and lovely face, surrounded as it is by most exquisitely executed flowers and vines, with a glance of woodland in the distance, will make this picture the favorite of many. A picture of equal merit would bring at least \$100 in the stores.

Should only this one picture be given as a Free Gift it would be a most magnanimous offer, but it is only one of the trio. The third subject is a new departure in the line of home decoration.

MORNING GLORIES is a novel mantel ornament, 7 by 33 inches. This is an ideal creation of one of the finest painters in the country. It is a combination of 6 subjects, in the form of a folding screen, which may be set upon the mantel, piano or table, and without framing or any other preparation, makes one of the most novel and striking decorations to be had. The whole screen is bordered, and the subjects entwined about with the delicate vines and blossoms of the Morning Glory, and each subject is the loving face of one or more of those little tots who are the real "Morning Glories" of every home, the light and sunshine of the family.

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Current Comment.

IN the enactment of a new food and dairy law the Ohio legislature has a duty to perform, and it owes to the people of the state the faithful performance of that duty. The law against the adulteration of foods must be an effective one in every particular. No law that has loopholes through which the adulterators or dealers in adulterated goods may escape from merited punishment will be satisfactory. Three and one half million consumers in the state have an interest in this matter. They do not desire a law that will injure a single honest manufacturer, jobber or retail grocer in the state. They do need an effective law that will protect them against the frauds in foods that flood our markets.

From the three pure food bills now pending in the legislature it is certainly possible to construct a law that will prove effective against frauds, furnish adequate protection to consumers, and at the same time will be fair and just to all honest dealers. It is not worth while to pass a bill that has had all its teeth drawn. To enact a law that will not stand the test is to encourage from the people a strong demand on the next legislature for a more drastic measure than has ever been proposed. Make an honest law, and consumers and honest dealers will unite in approval.

An opponent of one of the pure food bills now pending says:

"The part of this section requiring the per cent of each ingredient marked on the package of any mixture is entirely unnecessary for the protection of the consumer, and making it necessary as it does for every manufacturer to place his exact formula on his goods, thereby exposing the secrets of his business to his competitors and the public at large, would work a great harm to hundreds of manufacturers, or oblige them to take their goods entirely out of the state. Many of these people have secrets in manufacturing developed by a lifetime of study and experiment. Many have spent thousands of dollars in advertising in order to build up a trade, which would be utterly ruined were they obliged to give their secrets to the public."

Very likely. For if one of the sophisticated manufacturers were to label his brand of ground black pepper with the per cent of buckwheat hulls, black sand, cayenne, or other stuff contained in it, his trade in that line would undoubtedly be ruined.

How many consumers would buy or use some of the ground coffees now on market if the packages were marked with the per cent of the ingredients in the mixture? And so on through a long list of table articles. As the Ohio food and dairy commis-

sioner says, the infamy of food adulteration has reached proportions that are appalling.

The value of some of these so-called "trade secrets" may be illustrated by some of the horse and cattle condition-powders on the market. An analysis made and published by one of the experiment stations showed that one kind contained ninety-five per cent of wheat bran and linseed meal. The other five per cent consisted of ginger, pepper, camphor, fenugreek, etc. The worth of the material in a ton was about \$35; the selling price was \$1,000. As long as the composition remained a "trade secret," there was no doubt about its value to the compounder.

FROM an authentic biographical sketch of the new secretary of agriculture, given in a recent number of the *Breeder's Gazette*, we take the following:

"Mr. Morton has lived for thirty-eight years upon his farm at Nebraska City, giving it his personal attention. He is a tree enthusiast, and as the originator of Arbor day—a day now set apart by proclamation in many states for planting trees—his reputation is more than national. In a recent address Mr. Morton thus refers to the institution of this observance:

"I have done little but build a home, make it attractive, and rear my family to humble manhood. I have instituted Arbor day. It came to my mind that in this great, treeless plain a day that would owe its celebration to a future day, instead of some past, forgotten event, would not only be a benefit, but a blessing to humanity. It was taken up by this state, and went from state to state, until now it is celebrated in every civilized country on the face of the globe, and in many islands of the seas, so that the posterity of our race will rest under some wide-spreading trees, and kindly mention my name."

"Mr. Morton has always manifested a strong taste for horticulture, and has given much attention to it along with his general farming operations. He was one of the first to introduce improved live stock into the territory, and has always been a breeder and feeder of cattle and hogs."

"Mr. Morton has been for years in close personal touch with agriculture, horticulture and live-stock husbandry. Ex-Gov. Furnas and himself organized the first territorial fair, and furnished from their farms the larger part of the live-stock exhibit. Mr. Morton was for years identified with the work of the state board of agriculture, and served as its president. He represented his state at the Paris exposition and was one of Nebraska's commissioners at the Centennial. His whole life has been a training for the duties of the office which he now assumes."

Ex-Governor R. W. Furnas, of Nebraska, says:

"As to the new secretary of agriculture, his superior does not exist in any respect. I have been closely and intimately associated with him for the past thirty-seven years, and therefore know whereof I speak. He is an educated, refined, cultured gentleman, who has made agriculture and its kindreds a life study. His knowledge is therefore not merely theoretical, but practical. While his farm is largely given to horticulture, he is devoted to live stock as well—horses, cattle and swine particularly. Mr. Morton is not a politician as men who dabble in the modern political strife are termed, but he is a politician in its true definition—one who is versed in

the science of government.' While he and I are not of the same political party, and differ in some respects, knowing him as I do, I speak freely and candidly. He was one of the original members of our then territorial, now state, board of agriculture, and was for years its president. Mr. Morton is the peer of any man in the cabinet, and my word for it, the country will have reason to rejoice at the wisdom of Mr. Cleveland in selecting him as one of his counselors and advisers, more especially in matters pertaining to the department over which he will preside."

THE county, township and municipal bonded indebtedness of Ohio aggregates many million dollars. The annual interest on the bonds is a large sum. In spite of this fact there is a strong tendency to increase the amount of interest-bearing indebtedness. The legislature now has before it many special bills providing for the issue of bonds to raise money for local improvements. All these bills should receive the most careful scrutiny.

Sometimes it is wise and expedient to provide money for necessary improvements by issuing bonds. But whenever this is done the provisions of the law under which the bonds are issued should be most carefully drawn, so that the burdens on the taxpayers may be as light as possible. The annual interest on the bonds in a few years makes the cost to the taxpayers fifty, seventy-five or even one hundred per cent greater than the original cost of the improvements. The taxpayers want the improvements at minimum cost, not at the maximum. Some of these special bills for bonding municipalities look as if they were drawn in the interests of the investors of capital rather than in the interest of the people who want and who pay for the improvements. The provisions are such that the bonds may or must be sold on such terms that the taxpayers will have an enormous amount of interest to pay before the bonds are extinguished. This is a feature of bonded indebtedness that usually receives attention at too late a date to save the taxpayers any money. The time to guard against heavy and needless expenditure of public money in issuing bonds is when the law is enacted. A \$2,000 bond bearing five per cent interest payable in five years, costs the taxpayers \$2,500; payable in ten years, \$3,000; payable in twenty years, \$4,000.

ONE of the important and growing industries of the country is the canning industry. The tomato pack for 1892 was over seventy-seven million cans, and the corn pack was over eighty-two million cans.

"The economic value of the industry," says the statistician of the department of agriculture, "can hardly be estimated. With the railroad, of parallel growth, and the more recently-invented refrigerator car, the preservation of perishable products by canning is important as eliminating the factor of distance between the place of production and consumption; opening up at once the resources of the most remote parts of the country, and the markets not alone of this, but all countries.

"Thus, salmon caught in Alaska, beef slaughtered in Chicago, tomatoes canned in Maryland, and corn in Maine, are eatable in London, St. Petersburg or Hong Kong at any reasonable future time. The addition of these foods to the dietary of the masses is an incalculable benefit.

"The stimulation given to the growth of

certain agricultural products is appreciable, and the encouragement to needful diversification of crops is gratifying. Especially so is this in the South, where new canneries are rapidly being established."

The canning industry fits in well with factory dairying. One of the largest canning factories in Illinois is located near a good creamery, and numbers many dairymen among its patrons. The raising of corn, tomatoes, etc., for canning is done on the farm without interfering with the regular dairy work, and the daily morning trip to the creamery is extended to the cannery when it is in operation.

FOR many years the United States has led the world in the manufacture of agricultural machinery, not only in number and variety, but in quality and efficiency. Foreign-made implements, even of American invention and pattern, have never compared with our own. In the past few years our progress in this line has been greater than ever before.

A comparison between the implements made now and those made twelve or fifteen years ago shows how largely wood has been superseded by malleable iron and angle steel. Although made of much heavier material, the farm implements of to-day are lighter, stronger and more scientifically constructed. The substitution of steel in its lightest and strongest form for wood has been successfully made in nearly every implement. In harrows, cultivators, hay-rakes, harvesters, etc., we find angle steel in place of what now appears clumsy wooden frames, although they were models of lightness and strength in their day.

No machine shows this change more strikingly than the self-binding harvester. The use of angle steel in the construction of truss frames for binders originated a dozen years ago with D. M. Osborne & Co., who have always marched in the front ranks as manufacturers of harvesting machinery. They are issuing an attractive, illustrated catalogue describing their latest improvements in harvesting machinery, which can be obtained by addressing them at 21 Genesee street, Auburn, N. Y.

ALTHOUGH a majority of the members of both houses of Congress are on record in favor of the anti-option bill, it failed to become a law. After a long, hard struggle, the friends of the measure suffered a defeat in the closing days of the fifty-second Congress. By skilful parliamentary tactics its enemies delayed action on the bill for weeks, and finally succeeded in preventing the house of representatives from concurring in the senate amendments to the bill. The vote was 172 yeas to 124 nays, not the necessary two thirds.

In their fight for the anti-option bill against the boards of speculators and commercial gamblers the farmers of the country have failed to win, but they are not vanquished. The end is not yet. In a few months the next Congress will meet, and the fight will be renewed with redoubled vigor. In concluding the debate Congressman Hatch said, "This bill will pass as sure as the sun will rise and set to-morrow."

IT may not be long before the federal government will have to make an experiment in managing railways. From 1864 to 1869, \$50,000,000 of United States thirty-year bonds were issued to aid the construction of the Union Pacific railway. The first of these bonds become due in 1894. It is reported that the Union Pacific Railway Company will not be able to meet its obligations, and that it is getting ready to turn the railroad over to the government.

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Our Farm.

WESTERN NEW YORK HORTICULTURE.

BASIC SLAG.—The discussions indulged in at the recent meeting at Rochester, about the value of the comparatively new source of phosphoric acid, known under the terms "Thomas slag," "phosphate meal," "basic slag," "slag meal," "odorless phosphate," etc., show again the superficial way in which the fertilizer question is usually considered. Dr. Caldwell, the chemist of the Cornell university experiment station, of course could speak of slag only as a material, properly leaving it to the members of this advanced and progressive society to discuss, if desired, the point of application. Dr. Caldwell stated that this slag is a waste product of our iron and steel industry, often containing as high as thirty per cent of phosphoric acid, and that it must become reasonably abundant, since the great majority of the American iron ores are very rich in phosphoric acid; too rich, in fact, to be used for steel making by the old process. The systematic experiments made with slag as a fertilizing material, in Germany, show that the phosphoric acid, while not soluble in water, is about as readily available as reverted phosphoric acid, and therefore worth almost seven cents a pound, soluble acid being given a commercial rating of seven and one half cents and reverted acid of seven cents per pound.

From the discussions of the question it appeared that many of the members had given this fertilizing material a trial, sometimes with good and sometimes with indifferent results. On the whole, there was a disposition, even among our most advanced horticulturists, to criticize Dr. Caldwell for booming basic slag before its value had been more definitely determined by field experiments.

My impression is that Dr. Caldwell has done his part well. He simply called at-

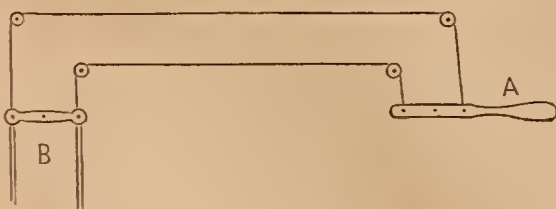


FIG. 3.

tention to a somewhat new fertilizer; explained its nature and value; told that it is somewhat slow in action, its exact degree of availability depending some what on its fineness (in this respect resembling bone), and advising application in the fall for spring crops. In short, he views and reviews this fertilizer from the standpoint of the analyzing chemist. He can do no more.

The question of selection and application must wholly be left with the user; and on the whole, it is safe to say that in these things proper discretion is seldom exercised.

Basic slag supplies only one single plant-food—phosphoric acid—and nothing else. If it is applied as a general manure, as done by most people, it is liable to be unsatisfactory and disappointing. If the soil and crop happen to be in need of phosphoric acid, and of nothing else, then I think basic slag will fill the bill. If nitrogen and potash, one or both, are also in insufficient supply in the soil, the application of slag is not liable to do much good, and if it fails to show striking results, don't blame the material, but the man who selects and applies it. It would not be reasonable to compare it and its effects with bone-meal, which also contains nitrogen, or with any of the ordinary fertilizers in the market, which usually have at least a small percentage of nitrogen and potash. In short, the only material with which it can justly be compared, and which might be a criterion of the value of the slag, is simple superphosphate—acid phosphate, or perhaps simple phosphate—floats or finely-ground phosphate rock.

I have made two such tests on a rather extensive scale, but only for one crop (buckwheat) thus far. Floats, acid phosphate and basic slag were applied in alternate strips, shortly before sowing the seed. There was no noticeable result from floats,

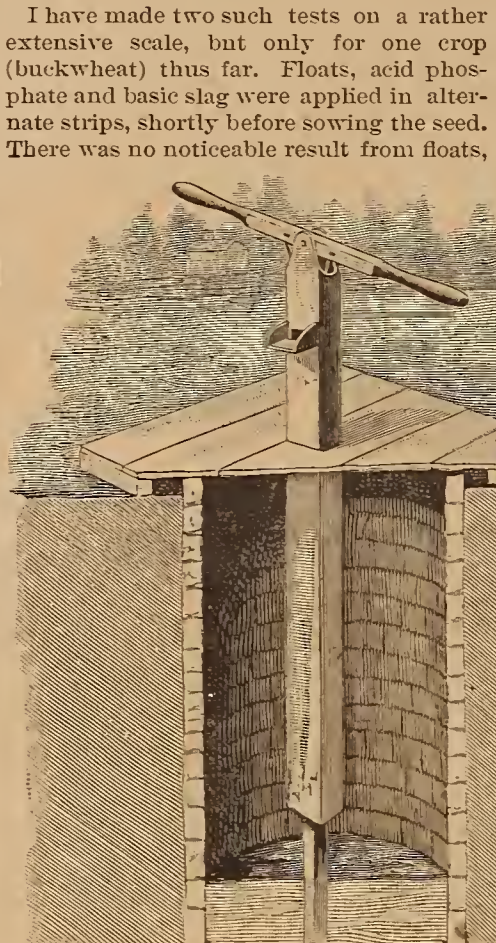


FIG. 1.

and about as small a crop on the parts where it was applied as on the strips left unmanured. The land had been used for grain production for many years, and seldom received any application in return. Where acid phosphate and basic slag had been applied the crop was a good one, with a slight difference in favor of the basic slag. The latter, owing to its greater weight, was applied, somewhat more liberally, hence this difference. These experiments have satisfied us that the phosphoric acid in slag is about as readily available for the buckwheat crop as it is in superphosphate; consequently, I consider the (preliminary) rating given by Dr. Caldwell about right. The slag now offered under the name "odorless phosphate," by a firm in Pennsylvania, has about twenty per cent of phosphoric acid, giving to the material a value of over \$20 per ton, and if, as was stated by a member present, it can now be had at \$14 per ton, we have in it one of the cheapest sources of available phosphoric acid. It is a good thing in its place, but don't attempt to get great results from it when you apply it as a general fertilizer, and in the wrong place.

THE MARKET QUESTION.—Repeatedly, during the discussions, the necessity of greater care and caution in marketing products was spoken of and emphasized by prominent commercial fruit growers. J. H. Hale says: "The man who sends commonplace or poor fruit to the market is always the one who complains of the price. Those who furnish fruit of extra quality never have overstocked the market, and never will." This is a theme worthy of still greater elaboration. It's the poor stuff, not only in fruits, but also in vegetables and all other lines of products, that demoralizes

the market. The most successful gardeners and fruit growers are always the ones who take the most pains in grading and packing their products. The name "J. H. Hale" stamped on the outside of a basket of peaches is equivalent to an extra twenty-five or fifty cents per basket in the Connecticut produce markets. But Mr. Hale pays each of his girl packers an extra \$2 per day for "good taste" in packing. He aims to have his baskets look as attractive as they can be made by all reasonable painstaking. Every peach of doubtful grade goes into the lower grade. A man, he says, will invariably give to the questionable peach the benefit of the doubt, and throw it into the better grade, while girls, following his instructions, will throw it into the lower grade where it belongs. Then he insists that the finest fruit, if there is any difference in one grade, must go into the middle of the package, never on the top.

This is to maintain his reputation for honesty, and the premium which the open market puts on produce marketed with his name attached. All these rules apply to all sorts of fruits, tree as well as small fruits, and if Mr. Hale were a market gardener, he would also apply the same rules to the packing of his vegetables.

No use denying the fact that there is altogether too much poor stuff in our produce markets. This invariably depresses prices, and the shipper of a good article is made to suffer in consequence. You find this true especially of the grape market. The consumer who buys a basket of grapes, takes them home and finds them good, will buy another, for grapes are not expensive. But let him get a basket of immature or inferior grapes—green Ives, hard Champions, broken bunches of Concord, moldy and specked with rot—and it will be some time before the second basket will find its way into the same family, no matter how temptingly another lot may be displayed in the stores.

Methods of culture, of course, also have their bearing upon this question. High feeding with suitable manures makes good fruit and vegetable crops. As already stated in an earlier article, plenty of nitrogen makes succulent and brittle vegetables; plenty of potash paints the red cheek upon the peach, and fills fruit full of sweetness; plenty of phosphoric acid tends to make fruits earlier.

First learn to produce a good article, then to pack it well and tastily. If you have only an inferior article, don't throw it into the market. It will not benefit yourself, and it must necessarily hurt the business of your neighbor. Marketing poor fruits, vegetables or other products is cheat all around; it is unwise, immoral, unchristian. The ordinary laws of decency forbid it; care for your own interest should not allow it. Keep the poor stuff at home; feed it to stock or dispose of it in any way that may suggest itself.

T. GREINER.

A HOME-MADE PUMP.

I send herewith sketches of my plan for a home-made pump. It is very cheap, and can be made on any farm with ordinary carpenter tools. Many farmers occupy the best land they possess with a large horse-lot, in order to make connection with a spring or running stream, when the lot could be contracted and the water conveyed there by a pump, and the surplus land put into cultivation.

Fig. 1 shows the pump complete as it is used where the well is in the lot. A section of the interior of the well is given, to show the construction of the lower part of the pump. It is a double pump, or two pumps in one, and is made of two boards 1x9 inches, two boards 1x5 inches and one scantling 3x3 inches. The length will be determined by the depth of the well or the height you wish to elevate water.

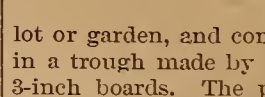
Fig. 2 shows how the pieces go together. Let the 3x3-inch scantling extend below the pump barrels, and rest the weight of the pump on the bottom of the well.

Fig. 5 shows the pump-valve. It is made of a block 4x5 inches square and one inch thick. Bore a two-inch auger-hole in the block and countersink the upper side; make a beveled lid to fit, and a small, leather hinge, and with a piece of wire cloth 4x5 inches cover the under side of the valve. In the same way fix the other pump barrel.

Fig. 4 shows the plunger-valve. It is made of a 3x3-inch scantling 6 inches long. Bore a two-inch auger-hole in the center of one end and a one-inch auger-hole in the other; then cut and mortise as shown, and make the valve same as directed for Fig. 5. A double-ended lever is used and is connected to the plunger-valves by wooden pieces, one inch square, of suitable length. A wide spout is used, so that the water is discharged from both pumps together.

This arrangement is all right if your well is in the horse-lot or the center of the garden; but suppose it is not, and you have a spring or running stream. We will set the pump in the spring or stream and make it of a height that water will run from the top of the pump to where it is wanted in the lot or garden, and convey the water there in a trough made by nailing up a box of 3-inch boards. The pump can be operated in the lot or garden by the use of another lever and two wires. Fig. 6 shows how it is done. A is the lever in the garden, and the pump is at B. Fig. 3 is the plan to use where the wires have to be elevated to cross a road or for crossing a field where plowing is done.

FIG. 4.



R. W. J. STEWART.
Georgia.

FARM ECONOMY.

There are many false ideas about economy on a farm. Some farmers, as well as other classes of people, appear to think that the saving of money directly is the only economy. They waste time, opportunity, material, but haggle and beat down when money is to be expended.

It does not occur to the farmer who lets the liquid manures run away that he is wasting money. It is economical, he thinks, to let the cows run in the young orchard in the fall to glean stray apples and rich tufts of rowen. The cattle break down trees, run here and there all day, and give less milk at night. He does not think of that, but of the few half-rotten apples that have been saved. That is his idea of economy.

There is the farmer who feeds his young stock on swale hay and corn-stalk butts all winter—on anything that will keep them alive—and in the spring boasts of the cheap way he wintered them.

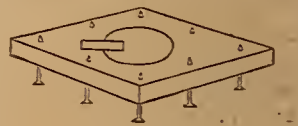


FIG. 5.

He does not realize that he has checked the growth perhaps six months.

This reminds me of a story of a farmer and his colt, whom I knew in my youth. The colt ran wild all winter over the farms in the neighborhood. He was a fine colt, iron-gray, round and plump, and his coat shone like burnished steel. His owner believed in the swale-hay method of keeping young stock in the winter—any animal not at work or not producing anything. He declared many times that the colt had only hay, and pretty poor hay at that. The neighbors wondered how the colt kept in such good flesh and spirits on poor hay. His glossy coat betrayed him, as the oily skin of the plantation negro "before the war" betrayed him as a feaster on stolen bacon. I went skating with the farmer's son one day, and in speaking of the colt I asked him if it were true that the colt had only hay. He came nearer and whispered, "If you won't tell, I'll give you the secret. The fact is, I've been stuffing him with grain, every chance I could get, all winter, but father don't know it." It were better for many a lean animal if a sympathetic boy took compassion on them and fed.

Did you ever go among calves and young heifers, lean and longing for something besides poor hay—for something besides the refuse from the mangers? How wistfully their eyes follow you. Starved and

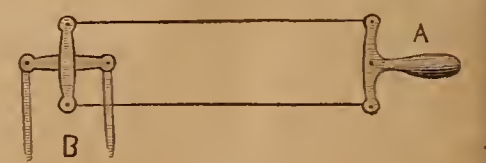


FIG. 6.

yet fed, their hair standing up like quills of the porcupine.

But the most extraordinary example of one kind of economy was that practiced by a western farmer in the building of his granary. It was built on a short, steep side-hill. A hog-pen was built from it to the foot of the slope, the object being to use the space under the granary as a nesting-place for the hogs. That was where

the economy came in. When he unloaded his wheat, he drove up to the west side and dumped the grain in, putting up boards as the wheat in the bin grew higher.

I asked him how he took the grain out, and he replied, "I'll show you the next time I go to mill." I stayed on this farm five weeks, and had opportunity to see how the granary hog-pen combination worked. One day he asked me to help him bag some wheat, as he was going to mill. We climbed over the fence into the hog-pen and went up under the granary floor, in the nesting-place of the hogs. The farmer reached up and pulled out a plug, held up a bag, and the wheat began to run into the bag. That was the only way he had of getting wheat out of his granary. It was an economical arrangement.

But my story is not half told. There were at least thirty swine of different ages and sizes in that pen, and every one had business right under that wheat-spout, for the stopping of the run of the wheat to tie the bag scattered a little, and the hogs had a taste and wanted more, and were determined to have it. It was not any easy task to stand in a stooping position, hold a bag up from the ground and at the same time kick off thirty hogs. There was not room enough under the granary to shoulder the bag, and it had to be carried in the hands to pen fence and placed on the other side.

But the work was nearly completed. I had carried the tenth bag to the fence and escaped with it to the other side. At this moment a man appeared who wanted to see "them steers," and the farmer came out of the pen with the bag half full. He suggested that I should continue the work alone while he went to look for the steers; but I did not propose to fight thirty hogs alone in that stifling, ill-smelling place, and I agreed to harness the horses, to be ready when he had shown the steers and filled another bag.

He said he would be gone "a few minutes." He did not return for two hours; all that time was required to sell the steers. Then we went back to the granary. I shall never forget the look on his face as he glanced into the pen and up to the spout place under the granary. Either he forgot to put back the plug in the floor of the granary, or it was not properly secured. Anyway, the wheat had been running out for two hours, and the thirty hogs were in it shoulder-deep.

As he seized a piece of scantling and rushed in to save the wheat, or the hogs from gorging themselves, he muttered, "If there's a bigger fool 'n I am anywheres around I'd like to see him."

GEORGE APPLETON.

THE BORROWING HABIT.

Does it pay to borrow? If so, some people ought to get enormously rich. It is likely that there are few persons who have never sought to borrow, and in all probability there are not many who have never been called upon to lend. And while it is very easy to thus make use of the conveniences purchased through a neighbor's toil, and in many cases not very easily avoided, yet, all in all, to make it a rule always to borrow rather than to purchase, is a practice not at all commendable.

My parents taught me that it was very poor economy to borrow; not only because one must necessarily lose more or less time in going after the borrowed article, but the neighbor from whom you borrow must in all probability spend some time in getting the article for your accommodation. Then, if one is conscientious, he must take the time to return the article promptly, or the neighbor upon whose accommodation he has depended must further accommodate him by going after it himself. A borrowed article should always be promptly returned, and in as good condition as when borrowed. But the natural wear on many articles sometimes makes this impossible. In that case the proper thing to do is to pay a fair sum for their use.

One man has no right to expect a neighbor to furnish him with costly machinery. He might, with as much honor, ask his neighbor to pay his rent, or his taxes, or loan him one or two hundred dollars for a few days without a note and without interest. This is not only my parents' teaching, but it was their practice. I never knew my father to borrow more than a dozen times in twenty-five years, and I do not remember of any instance in which my mother borrowed; she always said it was easier to devise some means of getting along without than it was to borrow.

Why do people borrow? Some borrow because they are unable to possess. This class will frequently make great sacrifices rather

than borrow, and most frequently prefer paying reasonable rental for any article thus obtained. It is the part of true honor to lend to such freely, for, as a rule, they will take the best of care of anything thus in use. Others borrow because they do not want to invest money in anything that a neighbor will loan. This class is selfish, and can never be relied upon to return a favor. It is one's duty to refuse to loan to such. There are some who borrow because it requires all their income to keep up their style of living, and they have no money to spare for conveniences, or even necessities. They want to dress a little better than A's, or have a finer conveyance than B's, or a grander parlor than C's. This class is to be pitied. There are others who borrow from habit. They were so raised, and having become constitutional, it is altogether unavoidable. In this case, no effectual remedy has as yet been discovered.

What do people borrow? That depends on their occupation. In a farming community they borrow plows, harrows, shovels, hoes, harness, wagons, sleds, forks, dung-hooks, hay-knives, seed-planters, drills, mowing-machines, grain-sacks, augers, bits, saws, wrenches, flour, coffee, spices, lamp-oil, yeast, and any other article known to exist in that locality. In fact, it would be a lighter task to mention what is not borrowed.

When is one most likely to be asked to loan? Usually about that season in which he is most liable to need the article for his own use.

Must he always lend? Yes, or be called mean. No matter if he should want to use the thing himself; no matter if the borrower is careless and liable to break or damage; no matter if he is worth ten dollars to your one; no matter if his income is \$2,000 and yours \$200; no matter if he does degrade you behind your back or refuses to do you a favor, you must promptly respond, and your face must beam with broad and cheerful smiles, while you carefully refrain from asking that the article be returned.

I am frequently called from my work to spend half an hour or an hour in getting an article for a neighbor, sometimes work to great disadvantage because an article is not at home, and often go after something not returned. For several years an effort has been made to solve the problem of securing the prompt return of everything borrowed, but all to no purpose. I have kept mental note of things borrowed, and find the summer months bring about five times as many calls as the winter months. From September to April there is comparative quiet in the borrowing line. Having an unusual number of calls during August and September, I resolved to note down the borrowed articles during October. Here is the list, with the number of days before return:

- 1st. Neighbor A borrowed fanning-mill; B, spring-wagon.
- 3d. C, fanning-mill; B, brush-scythe, thirty days.
- 5th. D, boring-machine; D, augers.
- 6th. E, Shropshire ram, twenty-one days.
- 12th. A, wagon and hay-ladders; C, grain-sacks.
- 14th. C, fanning-mill, not yet returned; F, mattock; B, dung-fork.
- 15th. F, rivets; A, wagon and hay-ladders; G, writing-paper and pen; C, scoop-shovel; F, file.
- 17th. H, carriage and robes, three days; I, wagon; A, half-bushel measure, not yet returned; H, hired girl, two days.
- 29th. J, wagon.

During the month my business took me from home seventeen days, and deducting five Sundays, the other nine days are represented above. Then, too, there being no apples, I had no calls for cider-press, cider-barrels or copper kettle, which usually do service during October.

I have good neighbors, and everything returned was in good shape, if the carriage be excepted. This was borrowed by a new neighbor, who poured on enough oil to do three sets of wheels, and of course, it ran down over hubs, axles and spokes, to accumulate dust. Then the right lamp had been given an application of tobacco-juice (undoubtedly to keep off the flies), from which fact I presume the driver is a convert to the theory of spraying. He ought to have known, however, that it is dangerous to use such rank poisons as tobacco.

Speaking of tobacco reminds me that the young man who came after the boring-machine said that he had requested an advance of \$5 from his employer, with which to buy a machine. He had placed the bill unprotected in his pocket, and in reaching after his tobacco he unintentionally pulled out the bill also, and thus lost it,

He sorely lamented the loss, and I sincerely pitied him, for I wondered if he could estimate how many hard-earned dollars he had pulled out of his pocket, and after chewing it a few minutes, intentionally, but unconsciously, threw away. I sometimes think that men who are rich enough to throw away money in drink, cards or tobacco ought not to borrow from poor people who cannot afford such things.

Shady Nook Farm. JOHN L. SHAWVER.

RAISING PORK IN THE SOUTH.

There is no portion of the United States where as much good pork can be produced at the same cost as in the southern states. Hogs are not any more subject to disease in this southern climate than anywhere else in the Union.

We have cheap lands; we have cheap labor; we have cheap building materials for fences and shelters; we can grow the greatest possible varieties of grasses and grains and tubers. Our Bermuda grass makes a tough sod that will last a lifetime and furnish more nutritious grazing for nine months in the year than any one grass, or two grasses, perhaps, that can be successfully and profitably grown in a more northern latitude. Our Lespedeza striata is chemically far richer than red clover, and grows spontaneously all over the cotton states. Both Bermuda and the Lespedeza flourish on all varieties of soil, wet or dry, hill or valley. Then besides, we have many other excellent pasture grasses among our native varieties. The cheapest pork is made on grass. The healthiest hogs are those that are mainly raised on pasture.

In the fall we can fatten on cow-peas, peanuts, artichokes, chufas, sweet potatoes, etc. All the above crops can be raised at comparatively little cost. The hogs will do their own harvesting.

A short while before slaughtering, enough corn can be fed to harden and solidify the flesh.

On our clay and lime soils we can raise as good crops of red clover as can be grown anywhere.

Dry pork is now selling by retail in our stores at twelve and one-half cents per pound for cash; fifteen to eighteen cents on credit.

The South sends an immense sum of money west every year for pork products. We cannot afford to buy this pork at any price, since we can raise it so cheaply on our own farms. EDWIN MONTGOMERY, Mississippi.

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Kingsley, Iowa.

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Our Farm.

WINTER DAIRY BARN.

In this section of New York state it has been the custom to commence milking in March or April, and stop the first or middle of November, or as soon as the weather becomes cold. I built a barn in which I can keep the temperature at sixty degrees through the entire winter. The barn is on a stone basement sixty feet long, thirty feet wide and eight feet high. The cows stand on each side, facing the wall, leaving about twelve feet between the two rows. This central space is raised five inches. In this the milk-wagons stand, so we put the milk into the cans without going out of the barn. The cows stand five inches above the drop, on a platform which is made the width required for the cows, so the litter may fall in the drop. But the platform is level, for I think a cow that is with calf should not stand on a slanting floor.

Now with plenty of sawdust, hauled in the summer and put under cover, the barn is kept clean and dry.

For eighteen inches back the mangers are raised two inches above the cows' feet, and from there are raised eight inches more, running at this height level back to the wall. This prevents the hay from working away from the cows, as it tends to work down onto the first platform, which is easily reached by the cows.

The walls of the barn are plastered on the inside with water-lime, and the doors are double, thus the cold air is kept out, and the barn made warm. Under the barn I have a cellar sixteen feet square containing a hot-air furnace like those used for warming houses. The furnace is fed with cold air from the outside, which is heated and carried up into the barn. This keeps a current of fresh air always coming into the barn, and gives a good circulation, as the foul air is carried off at the top by a ventilator. Over the register through which the hot air enters the barn I have an iron tank 5x6 feet, 20 inches deep; the hot air strikes against this tank and then passes off in the barn. For fuel, I get from coal-yard what is known as siftings, which are usually thrown away, so they cost me only fifty cents a ton. I use stove coal for starting the fire. I shovel some of the siftings on this fire two or three times a day, as needed. I can thus keep the barn and water warm with a very slight expense.

Twice a day the cows are unfasted, four or five at a time, and they go to this tank to drink. The barn is kept at sixty degrees, and the water at seventy degrees.

For water, I drove at one end of the barn a well twenty-seven feet deep, and found water. Then taking two timbers 40 feet long, 6x6 inches, I stood them up against the barn, bolted them to it, and on the top of them put a windmill, which pumps the water and drives it into a cistern that is under ground away from the frost. This cistern is made of stone and water-lime, and from the bottom of it is a pipe connected with the tank in the barn. After the cows have been watered, the faucet is opened and the water fills the tank and is warmed for the next day. In this way I can pump on a windy day enough water to fill the cistern, and so have a supply of water for a week or more in case the wind should not blow.

I raise my own corn, hnsk it and grind it. The fodder is cured and fed. As I can furnish water cheap, and if it is warm the cows will drink enough to soak the food properly for digestion, I do not think there is as much lost in the fodder as there is in the kernels of siloed corn that the cows do not chew.

Last year when I commenced to warm my barn I had twenty-two cows that dropped their calves in the spring, and were due to calf in April. I fed them one quart of corn-meal per day and used one ton of stove coal and three loads of screenings, that cost \$7.50, from November 1st to March 1st. I received from my milk \$403.92. The cows were watered morning and night, but were not out of the barn during the time. I can also show that the cows were no worse for being kept in the barn all the winter. Last summer, from May 1st to November 1st, I received from the factory \$898.24, and this without feeding \$20 of grain. In order to test the warm barn further, I put the cows in last fall and gave them no grain until December 17th, and during the last twenty days they had

nothing but hay, three times a day. The barn was kept at sixty degrees and the water at seventy degrees. They gave in the twenty days 5,045 pounds of milk, which at \$1.40 per hundred brought \$70.63. They now give 200 pounds per day, having one quart of corn-meal per day. As some will drop their calves again by the middle of March, I do not intend that they shall know there has been a frost this winter, and this I can do at a cost of \$10. Not being compelled to travel a mile each day to get a little ice-water, they are fat, so I have sold two at the market, and shall buy more to fill their places.

A barn can be arranged like the one I have described for a small expense, which twenty cows in one winter will certainly earn, and the barn once arranged will last a lifetime.

N. BROWN.

New York.

SHEEP NOTES.

Sheep husbandry can be made very profitable on the average southern farm if everyone keeping sheep would feed the dogs in the neighborhood freely on a strychnine diet. If a man is not willing to resort to this he is not the proper person to raise sheep profitably in this country. Few states in any section of the South and West have any effective law against the hundreds of thousands of worthless curs that infest the country, nor does it seem that our state representatives will ever give us such laws as we need to protect the sheep interest when they assemble in legislative halls. So we must get rid of some of these dogs in some way if we wish to have any great degree of success with sheep. In using strychnine, let no one see you prepare the medicine; confide in no one.

The farmer who raises sheep should have good fences. There is nothing more exasperating than for one's neighbor's sheep or hogs to break through into one's fields and crops. This is the time when the injured farmer feels that he is almost persuaded to commit murder, and we tell you frankly, you had better let him alone and stay out of his way until he somewhat cools off.

Sheep are hardly more valuable to the average southern farmer for their wool than they are as weed destroyers and exterminators of noxious plants generally. Our southern pastures are largely overrun with such a class of vegetation. We need the aid of sheep to keep the weeds and troublesome undergrowth in subjection. The sheep often bite off the tops of weeds and prevent their seeding. They will exterminate cockleburrs.

If a farmer does decide to keep a small flock of sheep on his farm, let him see to it that they are securely penned at night, and the pen high enough and close enough to keep out dogs, or else have the pen fence slanting toward the inside, so that a dog jumping in will not be able to jump out again.

The farmer who keeps sheep for pleasure or profit should make up his mind to feed them well in winter. Don't starve the sheep! A half-starved sheep is a sad sight to see, and its pitiful cry of hunger is a sad voice to hear.

There are hundreds and thousands of farmers in the United States who will tell you that their small flocks of sheep are as profitable to them as any class of live stock on the farm, and they will tell you their sheep will pay them well, tariff or no tariff.

Large flocks of sheep do not pay so well relatively as small ones. Frequently, farmers overstock themselves with sheep. Sheep will not thrive so well in too much crowded numbers. The idea with the average farmer should be to keep only a small flock of sheep of good blood, give them good feed, shelter well and give general good attention. By being divided up into small flocks, sheep will not only prove healthier, but will develop larger size and will doubtless furnish a greater amount of wool. The Merino will bear closer crowding than any other breed.

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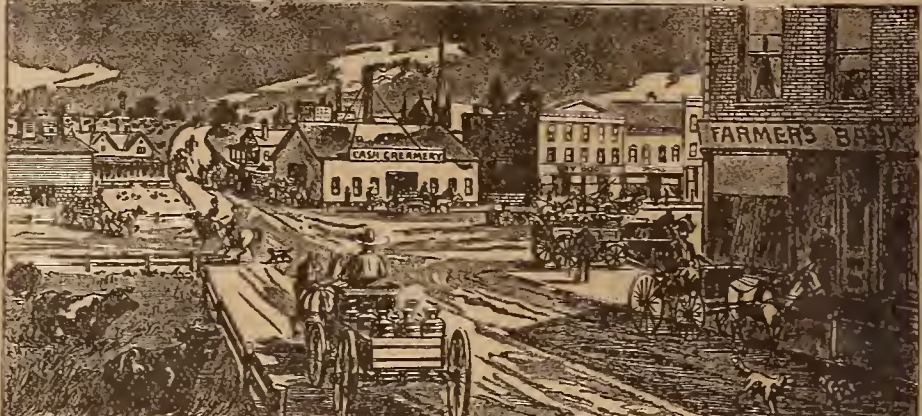
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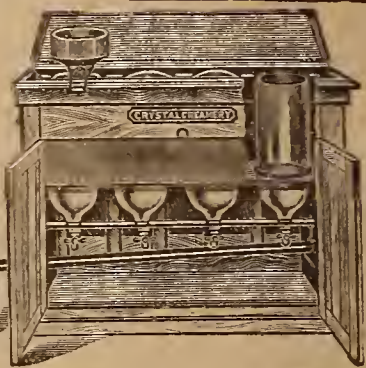
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Our Farm.

GARDEN AND FIELD NOTES.

THE VINELESS YAM.—Well, we must surely try this. There is much testimony in its favor. G. Camerer, of Clarke county, Indiana, for instance, writes: "The vineless sweet potato is not strictly vineless. The vines are dark green, thick and short, about two or three feet long, but don't catch root on the soil as other varieties will. They are the finest sweets grown, dry and mealy, excellent keepers, grow fast and to a large size. I raised them in Tennessee weighing five to seven pounds a tuber. In flavor they excel all other sweet potatoes, and I would not be without them at any price. Plants set out June 1st make fine potatoes by September 1st. I speak from six years' experience with them. I have none to sell and therefore no ax to grind. I consider them the 'ne plus ultra' sweet potato." Shortly after writing the reply to an inquiry on this subject, in a former issue, in which I solicited information from readers who might have tried this vineless yam, a communication written by Mr. Samuel A. Cook, of Georgia, and intended for an eastern journal, passed through my hands. He says, this "Burkitt" vineless yam has a smooth, yellow tuber; is exceedingly productive; the vines or stems do not exceed eighteen inches in length, and overspread the hill like the tuft on the head of a fowl. They are as easily cultivated as a turnip. Well, we will have to try it. It will not do for any one having the right soil and climate to neglect or ignore so good a thing as this is cracked up to be.

PERSONAL CORRESPONDENCE.—I have always been ready to comply with requests for information on horticultural matters, even if I was expected to give it by personal correspondence. I confess, however, that I have been a little out of sorts occasionally this winter, when such solicitations came so thick and fast that I have had to spend whole days in replying to them. Now, my friends should know that my time is worth at least \$10 a day. I cannot afford to contribute such an amount every little while simply to accommodate inquiring friends. Sometimes I am inclined to "kick," and to throw a whole lot of such letters into the big, gaping wastebasket which always stands at my desk ready and willing to receive. Usually, too, the information asked for can be found in all standard books on gardening.

Now let us fully understand this. When you wish to ask for advice on matters that are likely to be of interest to other readers of FARM AND FIRESIDE, do so without fear. I will gladly give in the columns of the paper the best that I have to offer. I am paid for doing this, and take pleasure in such duty. But don't, I beg of you, ask me for a page or two of manuscript in a personal letter. I have not yet decided about what course to take in future. Probably I will not make an iron-clad ruling, but the chances are that hereafter all letters asking for advice on matters which only interest the inquirer, will wander at once in the great receptacle spoken of. Sometimes a person is anxious enough for expert advice to pay a reasonable price for it. In such case he should inclose a fee—say a \$1 bill—in the letter, and this would insure prompt attention. This is only in justice to myself and family, and a rule that should be adopted when asking professional advice from any other farm teacher. Nobody likes to work for nothing and board himself. This is plain talk, I know, but put yourself in my position, friends, and you will appreciate the force and the need of it.

THE BUSH LIMAS.—I see by the catalogues that seed of Burpee's Big Bush Lima bean can now be had at a reasonable figure—about sixty cents a pint. While ordinarily I have not been in favor of growing one's own garden seeds, preferring to buy my annual supply because I am surer of the purity of the seedman's seeds than of the chance lots we save in our gardens, I have been quite careful to save every bean of the high-priced bush Limas ever since I got the first packages. Now I am the fortunate possessor of quite a quantity, and they will all be planted, too. My friends, however, should not write to me for prices. I will not sell any. And, by the way, I am not dealing in seeds, and do not care for any trade of this kind. There is no profit in it for me. Seed dealers have their packages done up and mailed by help worth one dollar or two dollars a day. If, for accommodation or otherwise, I consent to send out a parcel of seed to any one asking

me for it in the mistaken notion that he is doing me a kindness by giving me an order, as he pays for the service, I have to do up such seed for mailing with my own hands, and my labor is too high-priced for leaving me any profit. But to return to the Lima beans. Last year I grew the Kumerle (Dreer's) and Burpee's Bush Limas side by side. Possibly there might have been some mixing. The one is simply a dwarfed Dreer's Lima, and like the pole bean of the same name, it is of very best quality. But its habit of growth is not of the best. This year I shall plant the two large bush sorts all mixed up, and continue saving seeds from these mixed plantings. Among the crosses which surely will result from this, I may get a bush form that will suit me exactly, and at least I will be on the lookout for it. In the meantime I would advise everyone who has a home garden in any locality where Lima beans are a reasonably sure crop, to include the bush Limas in his seed order. All three of them are worth having. Henderson's Dwarf Lima may be small, but it is early and prolific, and should not be omitted. By all means have the Henderson, the Dreer and the Burpee Bush Limas, otherwise you will miss something that is real good.

SOME GOOD FRUITS.—For a year or two a new grape has been largely advertised under the names "Green Mountain" and "Winchell." This is a really good grape, perhaps the earliest of the good sorts. It is hardy, a thrifty grower, an early and abundant annual bearer. Berries medium-sized, of green color, translucent, cluster medium-sized shouldered. Every lover of good grapes should have it, as it covers a season heretofore occupied by Champion and other early abominations.

Then there are the newer Japanese plums, sure, early and abundant bearers, of great hardiness, and almost exempt from diseases, and in a measure proof against curculio. The Ogon, a round, yellow sort is very early, but not of good quality except for canning. Next come the various sorts of the Botan class. The variety sent out by New Jersey nurserymen as Botan, some years ago, was afterward reintroduced by Lovett as Abundance. I believe that a number of nurserymen, Wm. Parry, of New Jersey, among them, still sell this under the old name, Botan. Then there is the Burbank, an excellent variety and great bearer, and others. Mr. Burbank, of California, is constantly producing crosses of these sorts, and some of them are the handsomest plums I have ever seen. These oriental plums may not be quite as good to eat out of hand as some of the European plums, but they are good enough, and sure to give us plenty of plums within a few years after the trees are planted.

JOSEPH.

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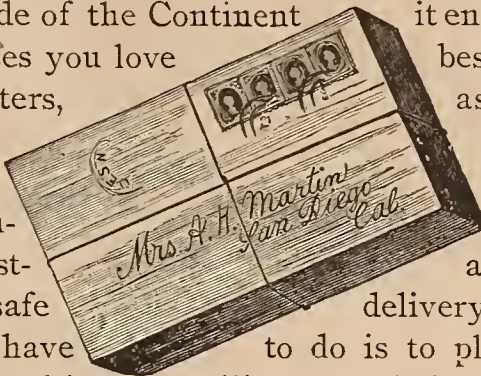
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CONDUCTED BY SAMUEL B. GREEN.

FRUITS ON THE FARM.

Not only should the farmer use every means to have all kinds of fruit, but he should endeavor to have the various fruits to come in as early in their season as possible. He should select the earliest as well as the best. Early fruit, though of inferior quality, will be of more pleasure and profit than if later and of better quality. My experience in marketing fruit for the last eighteen years has been to this effect. Seek the earliest to begin with, the best quality in all respects for main crop and the latest to quit on. The first and last or latest fruits are generally inferior, most especially with small fruits.

But to grow fruits to attain the most pleasure and profit, they must be planted on good soil, well prepared and properly cared for afterwards. To plant any variety of fruit on poor soil, unless it is well and properly manured, will not only prove an unprofitable investment, but will discourage the anxious grower and foster the idea that there is no pleasure or profit in its cultivation.

While fruits are very generous in their demands, still, all varieties of fruits prefer and should have, as far as practicable, soils genial to their wants, where they flourish best and grow to perfection with smallest amount of manure and cultivation.

Different situations, I have noticed, make difference in the time of ripening, size and quality of fruit. I have taken strawberry-plants of the same variety of pure stock, and set at the same time two beds, one bed facing the southeast and the other on level ground. There was several days' difference in the time of ripening. Those facing the southeast ripened first and sold for twenty-five cents per quart, while those set on level ground were as fine, if not finer, but came in later, when there were more berries in market, and sold for only twelve and a half cents per quart. Thus, the level bed would have deprived us of the pleasure of setting the first berries of the season before our neighbors, and enjoying the same dainty dish ourselves, besides considerable profit.

THOS. D. BAIRD.

Kentucky.

VALUE OF CLOVER-FIELDS TO ORCHARDS.

The clover-belted neighborhood aids the fruit grower in a way frequently unsuspected. The air from the southwest that passes over a clover-field, at almost any stage of growth, has not the dry, heated, breath-taking effect which the same breeze has when passing over bare surfaces, or grass or grain stubble.

In Kansas and Nebraska, during the years when tens of thousands of acres of corn were "fired" by the hot, dry "southwesters," it was found that fields escaped almost entirely that were flanked on the southwest by clover-fields, and on the same principle, fields escaped injury that had other large fields of corn over which the scorching winds must first pass. This mission of clover has long been recognized on the borders of the great deserts in Asia. Without fear of successful contradiction, it can in like manner be stated that the raspberry patch, the strawberry plantation, the vineyard, the orchard, the nursery and the garden will show less damage by fungus attacks, leaf rolling, fruit blistering, etc., when protected on the south and southwest by clover-fields or corn-fields.

Prof. J. W. Budd, in *Rural Life*.

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Time to Cut Scions.—R. Pulaski, Ga. The best time is in autumn, after the wood is thoroughly ripened, but will generally do well if they are cut during mild days in winter.

To Destroy Tent-caterpillar.—P. E. C., Angola, Kan. Spray the foliage as soon as the leaves are well opened, and then again in about ten days, with Paris green, at the rate of one pound to two hundred gallons of water. Avoid spraying while the trees are in blossom. The nests of the tent-caterpillar should be burned out.

Transplanting Strawberries.—L. P. L., La. You did right to reset the strawberry bed after it became too thick, and the plants will probably make a nice bed for next year, but they would bear more fruit this year had you moved them in November or December, which is the best time to move them in your section. Transplanting them when in blossom is not good practice. It ought to be done earlier.

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Spraying Raspberries and Blackberries.—G. W. S., Roanoke, Ind., writes: "Can raspberries and blackberries be sprayed to kill the insects that sting them? If so, at what time and how often should they be sprayed? Have tried cutting the stung parts off and burning them, but it does very little good."

REPLY:—You probably refer to the snowy tree-cricket and the cane-borer. There is no chance to get at them with poison, as they do not eat any of the exposed parts of the plants. Then again, raspberry foliage is very tender and easily burned by Paris green or London purple. Concerted action for two or three years in any neighborhood, in cutting and burning the infested canes, will greatly lessen the damage from these pests.

Flat-headed Borer.—J. C. T., Montrose, Ohio. The beetle of the flat-headed apple-borer commences to lay her eggs in May or June, and continues so doing during the summer months. The eggs are glued by the female to the loose scales or in the cracks of the bark. They probably hatch within a few days after being laid. The little borer works through the bark and burrows broad, flattened channels, and in this way may very soon girdle small trees. When its jaws get stronger it usually bores into the more solid wood, working for a while in an upward direction. When ready to transform, it cuts a passage to the outside, leaving but a thin covering of bark over the hole. It now undergoes its change to the pupa state. Large trees are not often seriously injured the first year, unless there are an unusual number of borers in the trunks. It is generally believed that the borers mature in one year, but this point is in doubt.

Plums and Peaches.—J. W. M., Missouri City, Mo., writes: "Last fall I purchased some plum-trees, as follows: Arkansas, Lombard, Wild Goose and Damson. I want two more varieties to furnish pollen. Would you recommend the Abundance and Ogon varieties, as they are free bloomers? If not, what would you recommend as best for this purpose, all other qualities considered? Also, please tell me if the Botton and Abundance are the same, as my nurseryman has them as such in his catalogue. Please name five best varieties of peaches for my section, all points considered, three clings and two freestones preferred."

REPLY:—The Lombard and Damson will fertilize themselves. The Arkansas I do not know about. The Wild Goose is readily fertilized by the De Soto, which is a native plum of very good quality. I would not recommend the Abundance or Ogon for this purpose, for I know of no satisfactory tests of either of them for this purpose, and they are very different in their characters from Wild Goose. The Botton is undoubtedly the same as Abundance. For peaches, take Heath Cling, Summer Snow, Amelia, Elberta and Piqueet's Late.

Codling-moth and Birds.—There came recently to this department an article from Kansas describing the benefits that would accrue to orchardists in the destruction of the codling-moth, if the barn-swallows were encouraged to increase about the farm buildings. It would be a very important matter were this anything like a check on the increase of this pest, but unfortunately there are several well-established facts which go to show that barn-swallows are not at all helpful in reducing the numbers of the codling-moth. (1) The codling-moth seldom flies in the open field, but remains near apple-trees, fitting among the branches. Swallows seldom fly among trees, and are not adapted for the short, jerky flying that is necessary to catch an insect in such surroundings. (2) In the examination of the crops of some five hundred barn-swallows, which was continued by Dr. Otto Senger through the greater part of one season, no moths of any kind were found in them. (3) The codling-moth is a night-flying insect and does not fly in the daytime. It will be seen from the above that the proposed plan is not a promising one. The hanging of bottles of sweetened water in the trees and various insect-traps have been recommended as means of destroying this pest, because moths have been caught in them. But among the many moths caught there are seldom if ever any codling-moths. The latter is not attracted to sugar or to lights; it does not feed during its existence, which is of very short duration. It is a sort of anomaly among moths.

New Peach-Varieties of Fruit.—W. C. H., Ernst, Ill., writes: "I would like to know about the following fruits for a small orchard, mostly for home use: The Baker Stelly seedling peach, sold by agents. Their claim is extreme hardiness, medium size, roots running straight down, all small limbs or twigs. The seeds resemble plum-seeds somewhat. Would like to know how the following varieties of cherries will succeed: The Temple, Windsor and Ostheim. Of grapes, Vergennes, Moore's Early and Niagara. Also the Idaho pear. Of apples, how do Walker's Beauty, McIntosh's Red, Jonathan, Wagoner, Arkansas Black, Wealthy, Oldenburgh, Rambo, Wolf River and Haas compare with the Ben Davis? This is for southeast central Illinois."

REPLY:—The peach you refer to is probably some high-priced novelty the nursery agents are pushing. I should be afraid to attempt much with it. The chances are you will do far better to plant standard, or at least widely-known varieties. I should think from the description of the agents that they were selling some kind of an apricot.—Do not know about the Temple. The Windsor is perhaps the best of the sweet cherries for your section. The Ostheim is hardy, but too small and poor in quality to be desirable, and you had better plant Ostheim. The Wagoner and Early Richmond are excellent varieties, and probably the most profitable you can plant. The grapes you mention are all good kinds. The Idaho pear is of much promise, but not well tested. Well worth trying. Walker's Beauty I do not know much about, but I think none of the others will compare with Ben Davis in early bearing and value for market. Of the kinds referred to, the Ben Davis is the poorest and Jonathan the best in quality. Arkansas Black and McIntosh's Red have not been long tried, but are very promising. The kinds not referred to by name are all of them early and prolific bearers, and far better in quality than Ben Davis.

INQUIRIES ANSWERED

BY SAMUEL B. GREEN.

Strawberry Varieties.—A. K., Mendocino, Cal., writes: "What kinds of strawberries are best adapted to a light, sandy soil with clay subsoil? I want a large variety. I have Parker Earle and Wilson's Albany. I would like some large variety that puts forth few runners."

REPLY:—Try Triomphe de Gand, Bubach and Sharpless.

Market Varieties of Strawberries.—J. S., Carroll Co., Md. Plant two rows of Warfield (pistillate) and alternate them with one row of Michel's Early (bisexual). Plant two feet apart in rows four feet apart, marking out and cultivating both ways. After the middle of June cultivate only one way. The Haverland might be used to some extent to replace Warfield.

Fruit Varieties.—E. B., Cayuga Co., N. Y. Apples—Tompkins County King, Hubbardston Nonsuch, Baldwin and Greening. Peaches—Alexander, Old Mixon Free, Crawford Late, Elberta and Heath Cling. Blackberries—Snyder, Ancient Briton and Erie. Black raspberries—Ohio and Nemaha. Red raspberries—Cuthbert and Marlboro. Strawberries—Haverland and Warfield of the pistillate kinds, and Jessie and Michel's Early of bisexual kinds.

Sawdust and Coal Ashes around Fruit-trees.—J. M., Delaware, Ohio, writes: "Will fresh sawdust make a good mulch for young fruit-trees? Will coal ashes, heaped up about a foot high around young apple-trees, injure the trees in any manner?"

REPLY:—It answers very well, provided it is not worked into the soil. Hard-wood sawdust is much better than that from pine or spruce. If either kind is worked into the soil it unakes it sour. No. It is the best kind of a mulch and can be used in perfect safety.

Soil and Manure for Strawberries.—W. W. K., Kenesaw, Neb. I think strawberries, grapes and other small fruits will grow well on any land that will grow good corn, and that they will do well on your land. I doubt very much if you would get any great returns from them without applying some manure; but in parts of your state the land is so rich that manure seems useless on it. Well-rotted barn-yard manure is the best to use. Coal ashes are of no more value for manure than so much sand, but on stiff soils they act beneficially in making them more open and porous. Cob ashes are of much value, and should always be applied to the land.

Nitrate of Soda on Strawberries.—J. R. R. As a rule I think it pays to use nitrate of soda on strawberry beds early in the spring, but it frequently happens that better results follow the use of a complete fertilizer. Nitrate of soda, and in fact all commercial fertilizers, seems to give far better returns in the eastern than in the western states. As a rule it does not pay to use them in the states west of Indiana, but it is better there to depend on stable manure and clover to keep up the land. About two hundred pounds per acre is a liberal dressing of nitrate of soda. If sown broadcast when the foliage is dry it will not stay on the leaves and they will not be injured. It should be applied just before plants come into flower. Well-rotted manure can be profitably put on at any time before the plants get into blossom, if some care is taken to put it close to the plants.

Hardy Apples.—J. W. W., Crichton, Idaho. The hardiest varieties of apples I know of are those that are planted in central and northern Minnesota; of the large kinds the best are Sibey or Hibernia, Duchess of Oldenburg, Anisim and Longfield. Of the crabs the best are Virginia, Transcendent, Powers and Minnesota. In a climate as sure as that of Idaho I think the best way to get the large apples is to top work them on the branches of the Virginia crab, which is the hardiest apple-tree I know of, and grows to large size. On such a stock I think you could probably grow Wealthy, MacMahon White and some others of the best hardy kinds very successfully. If you try this plan, be sure and graft on the branches so as to have the crotches of the tree of the Virginia crab, for many varieties are more liable to injury in the crotches than anywhere else.

Girdled Fruit-trees.—G. M. M., Bon Accord, Kansas. If they are completely girdled for a long distance, say one foot, so that there is no connection even of the inner bark anywhere across the gnawed spot, then it is almost useless to try to save them; but if there are some patches of bark left, or even the remotest sort of a connection across the gnawed portion, then they may perhaps be saved. The present treatment should consist in wrapping the wounded parts of all trees thought worth saving with grafting-wax covered with cloth; and if kept covered, the place will probably grow over in a year or two. I have many times in this way saved trees that were, apparently, entirely girdled, and had they been left without careful treatment they would surely have died. The trees that are hopelessly girdled should be cut back to the surface of the ground at once and have their stumps covered with grafting-wax. They will send up this spring numerous sprouts; one should be selected to make the new tree and all others be destroyed. In selecting this sprout, be careful to get from the scion and as low down as may be. Where large trees are girdled they can often be saved by putting scions into the bark above and below the wound every few inches, thus bridging the wound and allowing the sap to pass over the wound from the leaves to the roots, which is necessary for healthy growth. The sap from the leaves goes to the roots almost entirely just under the bark, and scarcely at all in the wood.

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EXTRACTS FROM CORRESPONDENCE.

FROM OKLAHOMA.—As is known, there is a bill pending in the Congress of the United States to open up these lands to actual settlers. Cherokee Strip is sixty miles by two hundred miles, and will make homes for thousands of people. It is one of the finest agricultural regions I have ever seen. In Oklahoma are lands rich in soil and natural advantages; running streams, living springs and plenty of timber, with a soil of great fertility, as has been proven by three successive years of good crops. Claims can be had quite cheaply yet, and improvements are now, in so short a time, equal to Kansas. Health is exceptionally fine. As a fruit belt this country cannot be surpassed. **G. W. M.**

Stillwater, Oklahoma.

FROM NEBRASKA.—The agricultural season of the year 1892 was an average one, and the results accomplished by the farmers of Nebraska during the past year, is a fair exposition of the agricultural conditions existing in that state. The acreage devoted to crops, however, was not so great as that of the previous year, owing to the heavy and continued spring rains, which interfered with planting. Corn is the great staple crop, and the yearly product of the state forms a most important factor in the corn supply of the world. In the year 1892, 4,102,025 acres produced 164,081,000 bushels. While corn is the principal crop in Nebraska, yet the chief attraction of this state to farmers is the fact that it is a country specially adapted to general farming. All varieties of grain, grasses and vegetables that are grown in other states of equal latitude thrive in Nebraska as well. Oats are raised in large quantities. A few years ago practically all the wheat grown in Nebraska was sown in the spring, and farmers aimed merely to raise enough for home consumption; but the fact is now well established that Nebraska is a great winter wheat country. Farmers are fast abandoning spring varieties, those adapted to fall planting proving more certain as well as more profitable. The acreage put in last fall is largely in excess of any previous year. In 1891 there were 1,223,787 acres under cultivation, yielding 19,580,592 bushels, an average of 16 bushels per acre; in 1892 there were 946,796 acres under cultivation, yielding 18,935,920 bushels, an average of 20 bushels per acre. Under favorable conditions the crop of 1893 will exceed, by at least twenty-five per cent, that of any previous record. Of the other cereals Nebraska produced in 1892, rye figures most prominently, with an acreage of 76,545 acres, yielding 3,061,800 bushels. There were under cultivation 150,000 acres of barley, 280,000 acres of flax, 60,000 acres of millet, 23,000 acres of broom-corn and 2,500 acres of hemp, all important and growing features of Nebraska's crop. Binding twine, chicory and tobacco are fast coming into prominence. A new industry, and one that has passed the experimental stage, is the cultivation of the sugar-beet, which is destined to become a very important factor in the crop report of Nebraska. A special report of this branch of agriculture is in process of preparation by Mr. Robert W. Furnas, secretary of the Nebraska state board of agriculture, Brownville, Nebraska, and those interested in this particular crop should address him for copies of the report. Naturally, in a state where the best of wild and cultivated grasses grow to such luxuriance, the live-stock interests are most important. The last live-stock census gives Nebraska 609,036 horses, 44,447 mules and asses, 1,699,854 cattle, 162,641 sheep and 1,633,839 hogs. The population of Nebraska, according to the census of 1890, was 1,058,910, an increase of 124 per cent over the census of 1880, and the present figures, naturally, are very largely in excess of those given above. Omaha, the metropolis of the state, had, according to the census of 1890, a population of 140,452; Lincoln, the capital of the state, 55,154, and eight other cities throughout the state contained a population of over 5,000 each. The transportation facilities throughout the state are most excellent, the leading railroad being the Burlington route, the lines of which gridiron the South Platte district, and also penetrate many countries north of the Platte river. Truly, Nebraska is a great state, and the eastern farmer will do well to carefully investigate its many advantages. Farm land of the best character, with some improvements, can be bought on most favorable terms at prices ranging from eight dollars per acre upwards, and in many cases during the past few years the crops produced have more than paid for the land on which they were cultivated.

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Our Farm.

THE POULTRY YARD.

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FORAGING AND EGGS.

THERE is no method of feeding that will give as good results as allowing the hens to forage, for by so doing they not only keep in good condition, due to daily exercise, but they also secure a large share of their food, and of a more varied character. Hens on the range lay more eggs than when confined, and the young chicks that are hatched early, and which are permitted to have the privilege of foraging, grow rapidly and become ready for market in a short time.

There is always the cost to be considered, however, whether the fowls are on a range or confined. It may not pay to devote a large field entirely to a flock of hens, as the use of the land is an item that enters into the cost. On the stubble-fields, or upon land that will be unoccupied by a crop, or by other stock, the hens will give a profit simply because the land would otherwise be idle. The best method is to give the hens the use of an orchard, as they will then only occupy a field already in service.

It will pay, however, to devote a special plot to poultry if the flock is large. One acre will not support a good cow unless with the best of management; but one acre will support fifty hens, and at less cost for extra feed than for a cow, and the profit, if the flock is well cared for, will be greater than from one cow. Looking at the matter from that standpoint it is safe to claim that it is as profitable to use land as a pasture for fowls as for cows.

All the drawbacks that may be ascribed to poultry raising are also liable with the cow. If the hens are disposed to cease laying for awhile, so will the cow become dry and remain unprofitable for a portion of the year. If the hen occasionally misses a few days in producing eggs, so will the cow often shrink in her milk and lessen the supply. Eggs may be cheap in some sections and appear unprofitable; but the prices do not vary as much for eggs as for milk, as we have known milk to sell for ten cents a gallon in one place, while bringing thirty cents elsewhere.

MIDNIGHT MARAUDERS.

It is difficult to capture and convict that class which robs the industrious farmer of his poultry while he is asleep, as he usually has no time to follow up the matter, while his neighbors are disposed to take no action until their turn comes next, when the same course is pursued. Now, if the farmers in each neighborhood will combine, and subscribe about five dollars each, or raise fifty or a hundred dollars as a fund to be used in employing a detective whenever a robbery occurs, it will do much to prevent such thefts, as the thief, though not fearing discovery from an individual, will seldom take risk when there is an organized body to protect all. The sum subscribed need not be paid, but simply pledged, as it may never be used at all. If poultry thieves find that some one will be on their track, they will go elsewhere to operate. It is when the thief knows that each individual must protect himself, and leave his crops to look for him, that he feels safe and secure, and he then robs each and all in turn.

WINTER USE OF HEN MANURE.

We usually clean out the poultry-house twice a week in winter, and scatter dry dirt on the floor, the work being done by sweeping with a broom. The droppings are then scattered on the rows of strawberries, from November until April. The rains and frosts break up the lumps and carry them down to the roots of the plants. We use the bed two years, and after picking the second crop we plant cabbages in the rows in order to clean out the weeds with the hoe. We not only secure large strawberries, but great, mammoth heads of cabbage, also, as we use the droppings plentifully and cultivate well. In the winter season

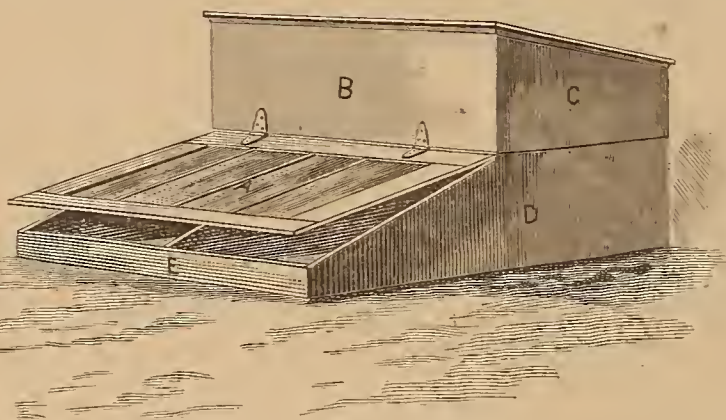
we believe that the easiest and cheapest way to dispose of the droppings is to follow our plan. If preferred, they may be broadcast on the garden plot. We see no advantage in storing or composting them, as there is a saving of labor and space by spreading them at once.

GREASE AND LICE.

Occasionally—about once a month—a few drops of melted lard or sweet-oil should be rubbed on the skin of the heads and necks of fowls, in order to kill the large lice which never leave the hens, unless driven off or destroyed by some oily substance. It is best to use but a few drops of the oil, as all classes of poultry detest grease on any part of their bodies. A little on the shanks of the legs will prevent the scaly-leg. Grease on very young chicks should be used cautiously, as too free use of it may kill them, but one drop of sweet-oil on the head of each newly-hatched chick will be of advantage in protecting it from the large gray lice, which leave the hen and go to the chicks.

DOUBLE-BOARD COOP FOR CHICKS.

A reader sends us a plan of a double-board coop, for two broods of chicks. The coop is four feet square, the back being eighteen inches high, and the highest point (center) being twenty-four inches. It slopes in front from one foot high at the center to two inches. In the illustration, A is a sash, fastened with hinges to the front of the coop (B), the sash being raised or lowered as desired. This sash may be made of wire cloth of about seven-eighths-inch mesh, to allow warmth, air and light to enter, and also to allow of arranging a center-board between the two broods. The frame of the coop is fastened to the floor with hinges at the back part, so as to allow of raising it at the back also, if desired. No glass should be used in the sash. If the weather is



DOUBLE-BOARD COOP FOR CHICKS.

severe, cover the sash with boards or tarred paper. The method of caring for the chicks by this plan is given in the FARM AND FIRESIDE of September 1, 1892, by the reader who sends this design. C and D show the upper and lower sides of the coop, and E the two-inch board in front. The coop protects against rats, cats, hawks, etc.

FOWLS AND GROWING CROPS.

There are some crops to which the hens may be permitted to have access, as they do but little, if any, damage, and at times confer benefit by destroying insects. Beets, carrots, parsnips, pumpkins, squash, cucumbers and potatoes, when well under way, will receive no damage, and asparagus will be protected from the beetles if a hen and her brood are turned on the bed. A melon or a squash may be sometimes picked, but this seldom happens unless one is first broken, and the hens learn to do so.

DAMPNESS AND NESTS.

There is no truth in the claim that a hen will hatch better on the damp ground than elsewhere. The fact is, that in summer the hen selects a cool place for hatching, and in winter she prefers a dry location. Hens have done as well in dry hay-lofts as on the ground. It is the temperature she aims to regulate, and not the moisture. When the weather begins to open she will select the coolest and most retired spot for her nest, and without regard to moisture.

PARCHED GRAIN.

If the hens refuse to readily accept wheat or corn, make a change for them by parching the grain. Oats are excellent when parched, and so is corn or wheat. Any change will prove beneficial where the food is but little varied. Very often a change from grain to sunflower seed will induce laying, and a change back to grain will also be relished. In the meantime, give a ration of meat and bone, and also allow skim-milk, if it is plentiful.

COMMON FLOCKS AS LAYERS.

It is sometimes stated by those who have not tested pure breeds, that the common hens are as good as any. This may apply to that season of the year when nearly all kinds of poultry are in condition for laying, and when all is favorable, but let the advocates of the common hen count the eggs they received this winter, when the prices in some markets ran up to fifty cents per dozen. Bear in mind that a flock of cross-bred or well-bred hens are not what we term "common." We allude to those flocks where no attention is paid to the selection of males, and where the hens are expected to pay their way without any aid or assistance from their owners.

YOUNG BROODS.

It is the cold, damp days that cause chicks to become chilled and droop, and the small coops and runs should be placed under a covered shed, so as to permit the chicks to stroll outside of the runs without being exposed to the weather. As they grow and become stronger, the runs may be placed on a grass plot, using the coops under the sheds for later broods.

CORRESPONDENCE.

GOOD RECORD FOR EIGHTY HENS.—I will give the exact production of my chickens for one year, and hope some one will give the cost of food, as I have fed mostly on corn of my own raising: January 1, 1892, I commenced with 80 hens, and now (January, 1893) I have 90. They averaged through the year 85 hens, and laid during the year 8,341 eggs, the average for each hen being 104½ dozen, which sold for \$176.11. I sold chickens during the year amounting to \$25.10, and have on hand, in value over the 80 hens that I began with, \$15.90. The total receipts were \$217.11, and the 80 hens averaged \$2.71 each. W. S. G. Santa Rosa, Cal.

SALT FOR POULTRY.—Reading an article in January 1st number, by J. R. C., of Rockfield, Ky., it called to mind my experiments and experience with salt for poultry. Fifteen to twenty years ago I was keeping from 200 to 400 hens, mostly White Leghorns, which I kept especially for eggs, as they were more profitable and less trouble to me than raising poultry to sell. Most of my neighbors kept poultry in flocks of twenty to one hundred, but very little care or attention was given, the result being much sickness, and some flocks nearly all died. They called it chicken-cholera. After studying over it, I concluded that poultry, like ourselves, really needed some salt, and as it was so carefully kept from them, the natural desire for some of it caused them to eat so much at once when they had a chance to do so, that it killed them. Many people, after being almost starved to death, eat too much at once. Bread and many things that we eat, salted, are eaten greedily by poultry, and it seems to be of benefit to them. I used soft feeds mostly in the mornings, with corn-meal and wheat bran, and often vegetables, boiled and mashed, with feed mixed in; also scalded oats, fed warm. I decided to use some salt in all such feed, and after a careful trial, it seemed plain to me that it was a real benefit. I used about a tablespoonful to two and one half gallons of feed. Everyone experimenting should go slow and watch the results with care. In some places a smaller quantity might be better. By study and careful attention my poultry was free from sickness, and paid well for all the care and attention given, but if salt is a good thing, no one can expect to make money keeping poultry unless other important things are well attended to, and the great amount of solid, good information given in this department, if read and the advice followed by poultry raisers, would be worth many times the cost of the paper. C. G. C. Charlottesville, Va.

INQUIRIES.

Cholera Remedy.—E. L., Marietta, Ohio, writes: "As there is no sure cure for cholera, please state the remedy which you consider the best."

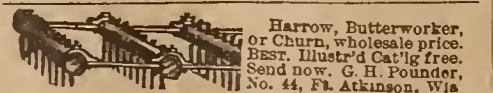
REPLY:—A teaspoonful of liquid carbolic acid in each half gallon of the drinking-water.

Plymouth Rocks.—S. H. R., Jaunesville, Wis., writes: "My Plymouth Rock pullets have a dark tinge on the front of the shanks. Is it any evidence of impurity?"

REPLY:—It is not, as pullets nearly always have the dark tinge, which usually passes away as they mature. Cockerels, on the contrary, are mostly free from it.

Fowls Running Together.—P. E. C., Angola, Kansas, writes: "Will it diminish the egg product if I let Hamburgs, Leghorns, Spanish and Plymouth Rocks run together? Will the chicks from such a mixed flock be weak or more subject to disease than if the breeds are separated?"

REPLY:—The number of eggs will not be diminished, nor will the chicks be weak, but such a method only destroys the advantages of keeping pure breeds, as each breed possesses some dominant merit of its own.



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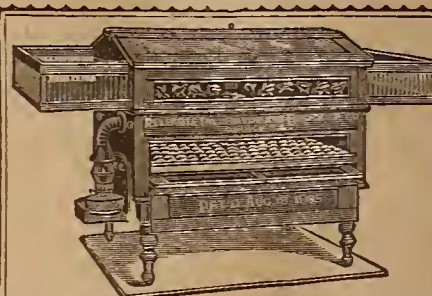
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Queries.

READ THIS NOTICE.

Questions from regular subscribers of FARM AND FIRESIDE, and relating to matters of general interest, will be answered in these columns free of charge. Querists desiring immediate replies, or asking information upon matters of personal interest only, should enclose stamps for return postage. The full name and post-office address of the querist should accompany each query in order that we may answer by mail if necessary. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Queries should not be written on paper containing matters of business, and should be written on one side of the paper only.

Shipping Beans.—H. L. W., Mayville, Wis. The party who buys your beans should pay for the bags. The rule among seedsmen in the wholesale trade is to charge for bags.

Coal Ashes in the Garden.—Ch. D., Hull, Iowa. Use your "fine ashes from hard coal siftings" for making walks or paths; or as an absorbent in the closet. They have no fertilizing value.

Garden Cultivator.—W. G., Sims, Ind. By all means buy a Planet Jr., of Allens. It is sure to give you satisfaction. The Manweight cultivator is sold by J. A. Everitt, of Indianapolis, in your own state.

Book on Silos Wanted—Tile for Irrigation.—A. V. F., Gering, Neb. Send 25 cents to this office for Prof. A. J. Cook's "Silos and Ensilage."—The ordinary drain tile, small size, is used for garden sub-irrigation.

Yellow Clover-seed.—J. L. G., Reynoldsburg, Ohio. Trefoil, yellow or hop clover, *Medicago lupulina*, can be obtained from the seedsmen who advertise in this paper. Their catalogues give directions for culture. It is listed at 20 cents a pound.

Bran as Manure.—R. N. McC., Sergeant's Bluff, Iowa. The phosphoric acid and nitrogen in wheat bran is worth about \$12 to the ton. I think I would prefer to feed it to stock and use the manure. In this way you get double benefit: in the increase of flesh, butter, etc., and in the manure. It is much like eating one's cake and keeping it, too. Usually we can get plant-foods more cheaply than by buying them for direct application, in the shape of bran.

Artichokes for Hog Feed.—F. A. S., Red Wing, Minn. Jerusalem artichokes are used for hog feeding. The tubers are cut the same as seed potatoes and planted early in the spring, twelve inches apart in rows three feet apart. Cultivate a few times; they will soon be able to take care of themselves. In October turn in the hogs and let them dig them as they want them. Enough seed will be left in the ground for the next crop. They are not so difficult to eradicate from the ground as has been claimed.

Grass for Overflowed Lands.—G. D., Lake View, Oregon, writes: "We have a great deal of land here that is overflowed in the spring, but gets dry during the summer and fall. It is mostly black, sandy loam, and is covered with a coarse grass that makes an abundance of inferior hay. I wish to know if there is any tame grass that would thrive on such land, as I would like to improve my hay. There is some alkali in the soil."

REPLY:—Write to your agricultural experiment station, Corvallis, Oregon, for information about grasses best suited to the overflowed lands of your state. Ohio grasses might not suit you at all.

The New Onion Culture.—J. S. D., Pierce county, Mo., writes: "Please republish the new method of onion growing."

REPLY BY JOSEPH:—Start plants by sowing seed under glass (in hotbed or greenhouse) during February or March and transplant as early as the condition of ground will permit and the plants are large enough, in rows twelve inches apart, setting plants two or three inches apart in the rows. Otherwise manage like onions grown from seed outdoors. So much has been said about onions recently that it would be overdoing this matter if I were to give the whole again in detail.

Cultivating Asparagus.—Mrs. K. B., Tazewell county, Ill., writes: "My asparagus was started from seed three years ago, but has not given good shoots. How should I manage it? Also, will onions be as good if seed is sown in the fall as if sown in spring?"

REPLY BY JOSEPH:—Set the plants in warm, well-prepared and well-enriched soil, giving plenty of space. They should not stand closer than 4 by 2 feet, or 5 by 1½. Keep free from weeds and apply manure every fall. You cannot expect strong shoots before the third year from seed, and should not cut any. Sow onions in spring. Fall planting is risky and unsatisfactory at the North.

Fertilizers for Tomatoes.—R. W., Peoria, Texas, writes: "I have a piece of land plowed this winter, which is a sandy loam, moderately rich. Will oak ashes, fresh from the fire, applied this winter, plowing again about a week before planting-time and applying cotton-seed meal, harrowed thoroughly, prepare it for a good crop of early tomatoes? If so, about what quantity of each should be applied per acre? What varieties do you recommend for an extra early crop?"

REPLY BY JOSEPH:—Fresh wood ashes are good for almost any garden crop under average soil conditions, and excellent for tomatoes. Use them as freely as you get them, if cheap enough, say twenty-five to fifty bushels and more per acre for tomatoes. If the ground is already moderately rich, you may not need very much nitrogenous manures. Use 500 to 1,000 pounds of cotton-seed meal. All these fertilizers may be applied in spring, on the surface, and harrowed in.

White Grubs.—R. H. H., Oshkosh, Wis., writes: "I have a few acres of land where I plant onions and celery every year. It is infested with white grubs, about one inch long with red head. They destroyed my onions and celery last season. What can I do to destroy them?"

REPLY BY JOSEPH:—If the "white grubs" are the larvae of the May beetle, as very likely, it may be that they reach maturity this year, emerge in the beetle state and will not be very destructive; or, possibly they may have to live in their present shape another season, and they may do more damage this season than they did last. Plowing in the autumn is always a good thing to do where grubs and wireworms abound. It usually destroys many of them. Heavy applications of lime, and especially of kainite or muriate of potash, may give some relief. Usually it is best to plant such crops as onions, strawberries, etc., on land that is known to be reasonably free from the pests.

Soil for Plant Raising.—F. S. T., Bay View, Wis., writes: "Would one part well-rotted cow manure to three parts well-rotted horse manure, and a small quantity of chicken droppings, put three inches thick in the bottom of the benches in a greenhouse and covered over with three inches good soil mixed with a little fine sand, be the best for forcing radishes and lettuce? Would it be good to put

it under and around rhubarb roots forced under benches? What is the best fertilizer for greenhouse purposes? Is bone-meal good to mix with the soil to grow lettuce and radishes?"

REPLY BY JOSEPH:—For greenhouse soil select a clean, fibrous loam, or sandy muck, and thoroughly mix with it a little fine, old manure, preferably cow manure, and if you wish, a pint of bone-dust to the bushel of soil. It would be a mistake to put a large quantity of manure under the plant-soil. Always mix well with the soil. Any kind of rotted manure will come acceptable to rhubarb plants. Put it on thick and work it into the soil around the plants.

Peanuts and Sweet Potatoes.—J. M., Fenwick, Ont. **REPLY BY JOSEPH:** Peanuts for seed and sweet potato plants can be had of all leading seedsmen. I think it very doubtful, however, whether you will make a signal success of either crop so far north. Peanuts for profit cannot be planted much north of Virginia, with safety. The newer, small but good and early Spanish peanut may be planted by amateurs—not in a commercial way—in warm localities and warm soils in the latitude of New York City, and perhaps slightly further north. Sweet potatoes are grown from slips. The tubers, either whole or cut in halves, are put in close layers, cut side down, on an inch layer of sand with bottom heat (in greenhouse or hotbed), and covered with four inches of sand. At planting-time (about June 1st) the slips are pulled and planted eighteen inches apart on a ridge formed by throwing a furrow from each side over a manure-filled row. My advice to you is, don't plant a bushel of each kind of seed; but plant a few dozen peanuts and twenty-five or fifty sweet potato plants, if you wish to try these vegetables.

VETERINARY.

Conducted by Dr. H. J. Detmers, Professor of Veterinary Surgery in Ohio State University.

To regular subscribers of FARM AND FIRESIDE, answers will be given through these columns free of charge. Where an immediate reply by mail is desired, the applicant should enclose a fee of one dollar, otherwise no attention will be paid to such a request. Inquiries should always contain the writer's full address. Queries must be received at least two weeks before the date of the issue in which the answer is expected. Subscribers may send their veterinary queries directly to Dr. H. J. DETMERS, 35 King Avenue, Columbus, Ohio.

NOTE:—Parties who desire an answer to their inquiries in this column, must give their name and address, not necessarily for publication, but for other good reasons. Anonymous inquiries are not answered under any circumstances.

Foul Sheath.—C. W. K., East Taunton, Mass. Have the sheath of your horse cleaned twice a week with warm, carbolic water (a one-per-cent solution of pure carbolic acid in clean, warm water).

Contracted Hoofs.—If your horse has contracted hoofs, and is not otherwise ailing, the best you can do is to remove the shoes. Keep the animal, if possible, barefooted, and work the same on the farm.

Stringy Milk.—F. M. McM., Bryan, Pa. Stringy milk may be due to various causes. In your case, however, the continued milking of the cow—not allowing her to become dry—until she calved, seems to constitute the cause. If such is the case, the milk will gradually improve and become normal, especially if the cow, which undoubtedly is a good milker, is milked three times a day instead of twice.

Chronic Swelling.—M. B. D., Bergen, N. Y. If the chronic swelling of your horse's leg is caused by interfering, you cannot expect a reduction until the cause is removed, and until you have your horse shod in such a way that no more interfering will take place. An intelligent horseshoer will know how to do it. After that has been done, you will succeed in reducing the swelling by bandaging, provided you put on the bandages in a proper manner. If you don't know how to do it, let somebody who knows show you.

Wants a Catalogue—Oil-meal.—W. S. M., Ottumwa, Iowa, writes: "Please send me a catalogue of the Ohio state university. When mares are with foal, will it hurt to feed them oil-meal in their feed?"

ANSWER:—You will get a catalogue if you address the president of the university, Dr. W. H. Scott, or the secretary, Capt. A. Cope, Columbus, Ohio, who have the distribution of the same.—As to your second question, if you mean by "oil-meal" cotton-seed oil-cake meal, I cannot advise feeding it to mares with foal.

Grease-heel.—J. S., Parisville, Kan., writes: "What is the best remedy for my mare's hind legs? They have been sore for two years. I have tried different remedies, but they do no good. There is an oily water that comes from around the pastern joint."

ANSWER:—If the disease is of two years' standing, it will be exceedingly difficult to effect a cure, and it will be impossible unless a very energetic and persistent treatment is resorted to, and even then failure is probable. Therefore, the best you can do, if you wish to have the animal treated, is to employ a veterinarian. If you attempt it yourself you will not succeed.

Very Lame.—A. R. W., Independence, W. Va., writes: "We have a horse that is very lame. His left hind leg is swelled very much. The swelling has gone down some, and a large bulging is on the inside of the leg. The bulging is about six inches above the fetlock. We do not know any cause for it."

ANSWER:—Your description fails to give a clear idea of the nature of the disease. For all I can learn, the bulging—I suppose that is what you mean—may be an inflammatory swelling, it may be an abscess, or the horse may have had his leg broken, and it may be a large callosity where the bone was fractured. It will therefore be best to have the animal examined by a veterinarian.

Chronic Bloating.—A. C. S., McMurray, Penn. Your cow suffers from chronic bloating, or tympanitis. First, try a change of food, and at any rate feed less hay, and make up with some grain, meal or bran. If that does not effect an improvement, you may give her a turpentine emulsion prepared in the following way: Take the yolks of two eggs, beat them to a uniform mass; then add, drop by drop, while continuing to beat the eggs, from one to one and a half ounces of oil of turpentine; when the yolks and the turpentine have become thoroughly mixed, add gradually from eight to twelve ounces of lime-water, under continual stirring of the mixture. Give the whole at one dose as a drench.

Cough.—P. E. D., Bradford, Tenn., writes: "Please tell me a cure for pigs that have a cough. I have some pigs about eight weeks old that are healthy and hearty, but cough badly. I keep them in a warm place."

ANSWER:—Coughing, as I have often stated in these columns, is a symptom common to nearly all diseases of the respiratory organs; consequently, if no other statement is made than that an animal coughs, it is impossible to make a diagnosis. In young pigs, coughing is frequently caused by the presence of lung-worms (*Strongylus paradoxus*). There is no remedy. The prevention consists in keeping the pigs away from muddy places and pools of stagnant water. But whether or not your pigs are thus affected, I have no means of knowing.

An Ugly Wound.—J. W. H., Bennet, Neb. The wound you describe (a torn and lacerated cut, by a barbed wire, just above the posterior part of the hoof and extending to the bone) is most assuredly an ugly one, and it is doubtful whether a horse thus injured can be restored to usefulness by any treatment. It will entirely depend upon what parts have been injured, and whether the hoof-joint has been opened. The treatment in such a case must be strictly antiseptic, and all applications of greasy substances, and anything that can possibly irritate the wound and increase the inflammation, must be strictly avoided. An antiseptic dressing twice a day and efficient protection by a good bandage, well applied, would be necessary. Whether the antiseptics, which in such a case are best applied and kept in contact with the wound by means of absorbent cotton, should be diluted carbolic acid, boric acid, iodoform or something else, would depend upon circumstances. Protection by a bandage over the dressing is indispensable.

Spavin.—J. A. N., Viola, Iowa, writes: "I read your article on treatment of ringbone and bone-spavin in FARM AND FIRESIDE of November 15, 1892. I have a twelve-year-old mare that was very lame with bone-spavin, and after about two months' treatment she is a great deal better, although favoring the leg considerably yet. Had I better apply the ointment right along, or discontinue it for a time, and then begin another course of the same treatment? I had no hopes of effecting a perfect cure as she was so very lame, but I think now it might be possible, as she is of a very quiet disposition."

ANSWER:—If you read that article once more, you will probably learn the cause of your partial failure. In the first place, not every case of spavin can be cured, and secondly, strict rest must be given for a sufficient length of time to make the formation of ankylosis possible. If the upper joint of the hock is not diseased, and the hock itself is not too weak, or weight and concussion not too unequally distributed, you may possibly succeed by a second attempt. There is yet time enough.

Elephantiasis—Shakes the Ear.—J. A. F., Ray's Hill, Pa., writes: "I have a fine horse, six years old. The right hind leg is about twice its natural size from the knee down. He seldom shows any sign of lameness. When traveling or working, the swelling goes down nearly one half. He also shakes his right ear as if there was something in it—worse when he gets warm."

ANSWER:—The swelling, if existing since the horse, which is now six, was one year old, seems to be elephantiasis, and is incurable. Still, if the swelling is much reduced by exercise, a permanent reduction, to a certain extent, may yet be affected by exercise during the day and judicious bandaging, with bandages of woolen flannel, during the night, a treatment so often described in these columns that a repetition would be superfluous.—As to the shaking of the right ear, you probably will find the cause in or on the ear itself, if you will make a careful examination. After you have found the cause, report again. It may be that the shaking is done only when the horse has a bridle on. In that case, the cause possibly may be in the headstall of the bridle.

Several Questions.—H. M. W., Pasco, Wash., writes: "Will you tell me in your next issue, 1. Why milch cows cannot eat alfalfa hay and sugar-cane as mixed food without killing them, while dry stock can eat the two as they please without injury? The past summer and fall I lost five cows and ruined one by such feeding. No one here can explain it. 2. Can ground Russian sunflower seeds be fed to

milch cows with good results? 3. After de-horning cattle, how should the wound be dressed?"

ANSWER:—1. Are you not, perhaps, mistaken in your statement? May not the death of your cows be due to some other cause or causes? If not, I cannot answer your question, and having no experience concerning such a mixture, I prefer not to give any opinion. 2. I do not know anything about Russian sunflower seeds. 3. I regard de-horning cattle as an unnecessary operation. If, however, one insists upon having his cattle dehorned, and if he don't like horns, but does not prefer to raise mules, he should have the operation performed only by a competent person, who, at any rate, is familiar with the first principles of surgery and knows how to dress the wounds, not only antiseptically, but also so as to protect the injured parts and the opened frontal sinuses.

Dizzy Spells.—F. B. S., Redding, Iowa, writes: "We have a mare that has dizzy, stupid spells before she has her colts. She began the last time to take them about three months before. She was in good order, but hadn't been fed grain very heavily. She was worse after standing in the barn over night. She would stand with her eyes shut and wouldn't pay any attention to any one. We could hardly get her out sometimes. She would reel and stagger and nearly fall on her knees. She would keep her head down most of the time. After she was exercised an hour or two, she would seem all right. She lost her colt; it was dead when we found it. She had had two before and both had lived. We have owned her but a little over a year, and have heard since she lost her colt that she had had the spells before having her other colts. Do you think they would cause its death? Is there anything we could do to prevent her taking them? And what care would you recommend to be given her? She will foal about the first of next June."

ANSWER:—The dizzy and stupid spells, very likely, are caused by too much pressure upon the large blood-vessels in the abdominal cavity, and upon the lungs, and thus by an irregularity in the circulation of the blood. These spells may be prevented by feeding less—or but very little—bulky and more concentrated food—more grain and less hay—and also by suitable exercise during the day, and by keeping her in a loose box during the night. If the mare's bowels should be constive, a good bran-mash will afford relief.

Horse-distemper.—G. G., Morton, Oregon. What you describe is nothing more nor less than common horse-distemper, somewhat irregular in its course in the cases mentioned. As a rule, it is not at all a dangerous disease, provided the patients receive good care and attention. The same must be kept in a good, clean and well-ventilated stable, which, however, must be so arranged that the patients are not exposed to draft. The food must be easy of digestion, and be given in a feed-box or manger respectively, so that the animals are not obliged to eat from the ground. The water for drinking must be fresh and pure, but not too cold. In the winter, therefore, it will be well to take off the chill by adding a little warm water to each bucketful. To water such horses from a trough common to all is not permissible, because such a watering-trough will soon become contaminated, and be a source of infection. Wherever abscesses are forming, the "ripening" of the same must be hastened, either by poulticing, where it can be done, or by application of warmth and moisture. If the abscesses develop between the lower jaw—the usual place—a piece of sheepskin with the wool on, tied to the halter, is often made use of. In other cases a little oil of cantharides—the prescription for making it has repeatedly been given in these columns—applied once or twice, will wonderfully hasten the ripening of the abscesses. As soon as such an abscess is fluctuating, it should be lanced, if possible, at the lowest point, and if between the lower jaws, in the median line. After it had been lanced, a finger should be introduced, and if there are partitions, the same should be torn, so as to enable the pus to flow off out of one opening. If this is neglected, new abscesses are apt to form. If such an abscess is opened too early, some induration may remain behind, and if not opened in time, there is sometimes danger that abscesses, in other parts, will form. If not opened at the lowest point, a fistula may result. After the abscess or abscesses have been opened, the same should frequently (twice a day) be cleaned with warm, carbolicized water (two to five per cent), or if they are large the cavity should be filled twice a day with absorbent cotton, saturated with a three or four per cent solution of carbolic acid. If this is done, the abscesses will heal in a short time. In some cases no abscesses are formed, and then the disease usually comes to a decision in the respiratory mucous membranes. In such a case internal medicines may be used. The following combination has proved to be of good service in a great many cases: Tart. emetic, half an ounce, crystal chlorate of ammonia, one ounce and a half, and powdered licorice root, powdered anis seed, and powdered marsh-mallow root, of each two ounces. This powder may be given mixed with the food, such as bran-mashes, etc., one heaping tablespoonful three times a day. Most horses readily take it. If they do not, a little water may be added to the powder, just enough to make a stiff dough, and then it is easy to form it into balls, or pills, and give it in that shape. Horses suffering from distemper must be exempted from work.

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WE'VE OUR FIGHTING CLOTHES ON!

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Our Fireside.

COUNSEL.

If thou dost bid thy friend farewell,
But for one night though that farewell may be,
Press thou his palm with thine. How caust thou tell
How far from thee

Fate or caprice may lead his feet
Ere that to-morrow comes? Men have been known
To lightly turn the corner of a street,
And days have grown

To months, and months to lagging years,
Before they looked in loving eyes again.
Parting, at best, is underlaid with tears,
With tears and pain.

Therefore, lest sudden death should come between,
Or time, or distance, clasp with pressure true
The hand of him who goeth forth; unseen,
Fate goeth too.

Yea, find thou always time to say
Some earnest words between the idle talk,
Lest with thee henceforth, ever night and day,
Regret should walk.

Conqueror Cupid.

PROLOGUE.

"ALWAYS HATE THEM, ETHEL."

"Well, doctor, how is she?"

And the speaker, a pretty, clean-shaven man, with an aquiline nose and a pudgy chin, leaned anxiously down from the saddle.

A hundred yards distant was a company of Confederate home guards, crouching behind a hedge of Cherokee roses. There was a huge gap at one place, where a twelve-pound Parrott shell had exploded, scattering the thickly intertwined limbs in every direction. Glancing through this aperture the doctor could see a battery of blue-coated Federals lumbering up and preparing to leave. A final shot or two was taken at an ancient-looking mansion nearly a mile away, from which the Confederates had issued to repel the passing attack.

Old men and boys were these home guards. Gray beards and smooth juvenile faces—not a black or brown whisker among the fifty or sixty. Neither was there a whole uniform, though different shades of gray predominated in a kind of helter-skelter fashion. They were loading and firing in a desultory way, which the enemy did not appear to notice.

The officer on horseback repeated his question; but before the physician had finished his reply, both heard the shriek of a shell unusually high above their heads. Both, as by a common impulse, glanced at the ancient plantation house glimmering whitely through the pines, and saw something that looked like an opaque streak in the clear sunlight burst into flaming fragments against the gray roof.

"My God!" exclaimed the physician, as the report crashed stunningly into their ears, even at that distance.

The officer on horseback grew deathly pale. A shout from his own men caused him to turn his head in time to see the gunner at the still smoking piece totter and fall. He smiled grimly as he noted the swift revenge of war, then turned to his next in command.

"Follow up those Yankees," said he. "Don't assault, but keep well within cover and pick them off every chance you get. I'll join you in half an hour at Mullet Point, for those fellows will be sure to make for their gunboats."

Then, noticing the look of surprise upon the face of his junior, he continued:

"That last shell struck my house, and my wife is sick unto death; can't you understand?" This rapidly and with deep emotion.

"All right, Squire Courtney, or—beg pardon—Captain Courtney, I should say. Staying at home, we oldsters almost forget that we are soldiers, after all. I'll look after the battery; they're already on the run. I hope you will find Mrs. Courtney all right."

The officer shook his head doubtfully, spurred his horse, and accompanied by the doctor, set off at a hard gallop for the house. The home guards cautiously followed the now retreating Federals.

Half way down the long oak avenue they met an elderly negro in a faded livery.

"Fo' Gaud's sake, marse!" he shouted as the squire went by, "hurry up! Dey ent no time to loose ef yo' want to see 'er onet mo'."

The doctor noticed that the tears were streaming down the negro's face as they thundered past.

"Old Milus wouldn't have run to meet us unless there was danger," he muttered to himself. "Perhaps I should have sent him instead of going myself, but I thought the squire would heed me quicker. Ah, this war, this cruel war!"

At the front door the squire sprang from the saddle, and ran up the steps into the hall. The old oak flooring was covered with shattered remnants from the roof and ceiling, through which yawned a great ragged rent whence shone the outside sunlight like a silver sheen. He mounted the wet stairway where water had been dashed over smoking fragments, then stood for an instant to collect himself before a closed door in the second story.

He clenched his teeth as he felt his heart pound suffocatingly within his breast, and looked around. Window-panes were shattered, part of the stair-railing was gone, a plaster cast of Diana had fallen forward, shattered into great fragments, a fierce smell of powder and a flare of smoke still lingered in the air. Inside suddenly rose the shrill lamentations of a child.

At this sound the squire turned the knob and entered; then he started, as through his eyes there darted a pain that settled like lead upon his heart.

Upon the bed was the form of his sick wife, and sobbing beside her, as if her heart would

"Always!" murmured little Ethel, as if by rote, and still seeking with her eyes the form of the mother who would speak to her no more.

Half an hour later the stricken husband was grimly riding to rejoin his command near Mullet Point.

From the deck of a Federal gunboat a couple of officers were talking together, as they surveyed the shores of the lagoon.

The scene was essentially southern and semi-tropical. Opposite them a broad, grass-waving savannah, culminated in a sweeping arc of white sand beach. Beyond it were gentle bluffs nodding with pines, and still beyond the level expanse of great plantation fields. On the other side of the lagoon clumps of cabbage palms rustled and glistened here and there over the marshes, while behind lowered the moss-draped obscurity of an immense hummock, sliced into cane and rice fields, now uncultivated and desolate.

The tide swirled smoothly, fish were leaping, and a line of pelicans flapped lazily seaward. The sea breeze, sweeping over the pines, was scented with the smell of salty sands and breakers, and the sun shone warmly, though the time was the winter of sixty-four. Except a few negro cabins in the fields and an isolated plantation house or tree, the scene looked sadly and suggestively deserted.

"It is a wonderful country," said one of the officers. "The longer I stay the better I like it; it is Italy without the ruins and the garlic."

"Every man to his notion, Major Luce," replied the other, who wore a naval uniform. "As for me, when I'm not aboard and cruising,

"Dass de mau, sub. I hearn 'em say he's pow'ful tuk down loug o' loosin' my ole missus. He up 'nd hates de Yaukees wuss 'n ever now. Dey say he had ter pull out wid his men atter the skirmish yes'day, 'nd ent stay ter de buryin' ner nuttin'. Dass redder hard on my old marse, ef he do be a Johnnie."

"Poor fellow!" murmured the major reflectively; then suddenly remembering that he was a Union soldier: "Serves him right, however, for fighting against the best government the suu ever shone upon."

"Yes, sah; dass 'bout de way of it," said the negro.

Then the nose of the boat ran out upon the snow-sanded beach.

CHAPTER I.

SEVEN YEARS LATER.

"Another northern man down here to stay, I suppose," growled the squire, settling himself for his morning shave, while Milus, a little older and grayer than before and without his faded livery, prepared some warm lather.

"Dass w'at dey say," remarked the negro, tearing off a conveniently-sized piece from an old newspaper, and placing it on his master's shoulder.

"They keep coming in, and buying up and talking politics with you darkies until the country is hardly fit for a self-respecting white man to stay in."

The squire was upon one of his favorite hobbies of complaint.

"This Yaukee major now. Of course, he'll bring a lot of new-fangled machinery here, and he'll have an eternal itching for office. These carpet-baggers always do."

"What 'd yo' go 'nd let him have Mullet Point fo' den?" asked Milus, stropping his razor vigorously.

"Because I wanted money, of course. You negroes have got to be so confounded lazy since freedom came, that the plantations won't support the hirelings, let alone the owners. But I'm sorry I sold to this fellow. I don't like his ways. They say he was soldiering down here in sixty-three and four, and took a fancy to the country. I want you boys to keep away from his wretched bone factory, d'ye hear?"

"Yes, marse."

"He'll want to go to the legislature."

The squire's neck veins were swollen beneath his pudgy jaws.

"He'll be after your infernally ignorant votes—"

Here Milus choked off further utterance with a brush full of fragrant lather,

and under the influence of his old servant's deft manipulations the squire's ill humor frittered itself away in stertorous growls and breathings. At the breakfast-table he was joined by a lively girl of twelve, who soon evinced her natural rights of sovereignty, by saying:

"Papa, Milus has got to take me down to Mullet Point to-day, hasn't he?"

"I'll break Milus' head if he does."

"Why, papa? Why mayn't I go?"

"Because I say no; that's why." But the child insisted, whereat the squire swore he would send her to that Charleston boarding-school forthwith; that Milus didn't earn his salt since he was free, anyhow; that the whole household were in a conspiracy to make his life a burden.

Little Ethel had wound her arms by this time about his neck and buried her usual nose in the fold of his double chin. Then the growls subsided into endearments and peace was ignominiously restored.

That afternoon, however, she trotted from the great house to the stables where Milus was at work and renewed the assault.

"De squire 'ud fally skin me alive," said the old negro, pausing, curry-comb in hand. "I can't hyur to takin' yo' off on any sech tromp as dat."

"Papa's asleep. I heard him snoring in the library. Now, Milus, you've just got to saddle up and take me. Besides, look here."

She held out a long plug of black tobacco, at sight of which Milus at once weakened.

Half an hour later the two were riding down a back lane into the pine woods and across the now dry marshes toward Mullet Point.

Over there long, low buildings were going up and a large force of hands were at work.



"FO' GAUD'S SAKE, MARSE, HURRY UP." "YOU, MILUS, SHOW THE GENTLEMAN OUT." BACKGROUND, MULLET POINT.

break, was a little girl of four or five years. A woman servant or two, together with several white ladies, were gathered about mingling their sorrow with evident fear and dismay.

The squire staggered across the room and bent over the wasted form and features. But there was no speculation in those glazing eyes, and the under jaw was falling as it falls only in death. One hand, still frantically clasped by the little girl, lay limp and nerveless.

The stricken man, clasping his hands, gazed at the dead figure like one in a trance, as the physician came in and felt of the now quiet pulse. One of the ladies burst into a violent fit of weeping, while the child moaned piteously.

"It is as I feared," murmured the doctor sadly. "The shock of that hursting shell snapped the almost severed cord of life. She could not have lived long in any event."

"Don't preach to me!" exclaimed the squire passionately, his dry, despairing eyes lighting up fiercely. "Never will I forgive them—these Yaukees! They have murdered the sweetest, purest, the most patient—oh, my wife! my wife! my wife!"

He sank sobbingly to his knees, and gathered the child in his arms, who, awe-struck amid her own grief at the sight of this greater agony, wound her little arms about his neck.

"Papa," she sobbed, "why don't mamma speak to me?"

The father clutched his little one the tighter, as the relieving tears came. Meanwhile the doctor covered the face of the dead.

"Ethel," exclaimed the squire, as soon as he could speak, and holding back the child to look into her eyes; "your dear mother will never speak again. Our enemies have murdered her—remember that. We must always hate them—always!"

give me the sunny side of Broadway. These Carolina swamps and rebs are too hiliious a dose for my constitution."

"Well, the war isn't going to last forever. I am tired of our New England winters, and I wouldn't care if I owned the very old house yonder we dropped a shell into yesterday. What land for cotton and corn this is about here. All it needs is the application of a little Yankee energy; these rebels and their darkies merely play with its capabilities."

"Your men did not find yonder place very healthy yesterday. Those home guards fought like veterans."

"Well, captain," said the major quizzically, "if men don't fight well with their wives and children in sight, when will they, I'd like to know. Think of the poor scared women in that house yesterday, and yet the sharpshooters it sheltered picked off a dozen of our best men. War has to be cruel, or it would last forever. But here comes my boat. I must go ashore and see how the boys are getting on with that breastwork."

He sprang into a yawl alongside, and was rowed rapidly towards Mullet Point, where the Federal battery was then intrenching itself.

Through the distant pines the white outlines of a little church were visible, with a small funeral procession issuing therefrom, on its way to the parish burial-ground.

"Must be somebody of importance," said Major Luce, scanning the winding train through a field-glass as the boat glided by.

"Hits de wife er Squire Courtney," said one of the negro oarsmen. "My old marse, he was Courtney Hall yonder, whar he live."

"Isn't there a Captain Courtney in the rebel home guards about here?"

Out in the channel of the lagoon a steam dredge, was digging up the phosphate rock, that on shore would be ground up into fertilizer for the worn-out cotton-fields of the South. Across the lagoon, upon a gentle rise of ground, Major Luce's new house was building. Ethel rode leisurely, with Milus close behind, her dark curls fluttering, and her little nose upturned at the disagreeable odors in the air. A fine-looking, middle-aged man was walking about with an air of proprietorship. By his side was a lad of fifteen clad in blue flannels, who first noticed Ethel and her attendant.

"There's old Courtney's daughter, father," he remarked.

The major slowly made his way towards Ethel, followed by his son.

"Let us go, Milus," exclaimed the girl. "They are going to speak to us."

"I can't hope dat," returned Milus dubiously. "Yo' doue got yo'self inter dish yere scrape; so what yo' want to run off fer? Dey ain't gwine ter bite yo', nohow."

"Glad to see you," said the major to Ethel. "This is my son, George. I hope you and he will be very good friends."

Ethel made no reply, and as one of his foremen was calling him the major hastened away, leaving his son to play the host. George eyed the ancient mule bestrode by Milus.

"He's a lean one," he remarked quizzically. "I guess it would take about two of him to make a shadow."

Ethel, failing to relish this joke, flashed upon George a look of scorn and turned away.

"Come, Milus," said she. "Let us go. I don't believe these folks have much manners, anyhow."

She rode off, followed by the negro, while George looked after them rather foolishly.

"Father," said he, later on, "I'll get even with that girl yet."

"Never mind, son. Pride is a hungry dog that feeds mostly at home. Take things easy, for I'm going to bundle you off north to school before long."

When the squire found that his commands had been disobeyed, he swore Ethel should trot to Charleston the very next day, and that Milus should never place his worthless carcass where his old master could set eyes on him again. Milus retired to the kitchen, where Calline, his wife, gave him small consolation.

"I wonder yo' haint no bettuh sense," said she, "nd to be a projeckin' off vid dat blessed chile down 'mong all dem ar Yankees."

But Milus cut his tobacco in two and handed half to Calline.

"Hush y'self, nigger," said he. "Ef I hadn't agone, yo' wouldn't a got dat ar truck ter chaw."

CHAPTER II.

OFF TO SCHOOL.

As time passed the squire and the ex-major, being near neighbors, got better acquainted. Each magnified to himself the other's weak points, yet as their interests did not clash, and as Luce did not go into politics or meddle with the negroes, the two became quite friendly in a casual way.

The squire would ride over and look at the major's mills, and go home with a secret respect for northern business energy carefully concealed under a good-natured contempt of "Luce's free and easy, democratic ways." The major would accompany the squire over the latter's unkempt cotton-fields, and when at home deride without stint what he called the "happy-go-lucky methods of southern agriculture."

Ethel and George also found each other more agreeable than the result of their first interview seemed to foreshadow. Milus and Calline fostered the growing friendship, seduced perhaps by George's generous bestowal of sundry dimes and nickels, of which his pockets never seemed to be empty. When Ethel went out riding, it began to be astonishing to note the regularity with which George would happen along, invariably to the seeming surprise of each.

One day he shot a white curlew out on a sand flat. While she danced and clapped her hands he waded out waist deep, and brought it to her, whereat she turned pontingly away. "It is very cruel of you to kill the pretty white things," said she.

"Why, only yesterday you said you wished you had one."

"Did I?" she replied serenely. "Well, I don't want it now. I wish it was out there, alive and well again. I won't have it at all."

"Yes you will; you've got to take it. See how wet I am, and all for you."

He playfully forced it upon her, but she shrank back. Suddenly she wrenched one hand away, and dealt him a blow upon the ear. George drew back, momentarily disconcerted, then seizing her he kissed her full upon the lips.

"There, now!" he exclaimed.

Ethel glared upon him, an angry flush upon her cheek; then as the tears started, she wheeled and fled homewards.

After this, for a time their relations were somewhat strained. But though they liked each other too well to remain long estranged, the childish freedom that at first characterized their intercourse was slowly lessened under the growing restraints of maturing youth and maidenhood.

But one day George received a sudden shock upon meeting Milus, and inquiring after his playmate, whom he had not seen for several days.

"De squire, he done sent missy off to dat ar boardin' skule, hat last," replied Milus. "He low'd hit was time dat chile wer gittin' to know suttin'. I ze never could see much use in dese yere skules, nohow."

George was greatly cast down. One day, meeting the squire coming down the road, on his great roan horse, he ventured to ask him if Ethel would be gone all the year.

"What is that to you, sir?" replied the old man tartly, for he had just found out that his upper rice-field was insufficiently flooded, and was in a bad humor in consequence.

On he rode, leaving George considerably depressed. The latter became lonesome, despite the snipe-shooting on the marshes, and the bass fishing in the channel of the lagoon. Even the coon hunts with torches, dogs and negroes at night, failed to enliven him much. He was not sorry, therefore, when his father at last told him to prepare for his first school year at the North.

Before leaving he had, with much labor, written Ethel a letter, giving the same to Milus for delivery, with injunctions to let no one but Ethel see the all-important epistle.

"Lord, yes, chile!" said the acquiescent darkey. "I ze hide it under de kitchen ha'th-stone twill missy come home."

Two months later, when Ethel returned for the Christmas holidays, Milus, with sundry winks, delivered it, saying:

"Marse George, he's a mighty good scribe, 'nd he left dish yere in tickler for yo'."

Ethel read the labored lines, then threw them into the cold fireplace. That night, however, sundry qualms of conscience intruded so obstinately that she rose, rescued the crumpled note, placed it under her pillow, and soon thereafter fell asleep.

CHAPTER III.

THE SQUIRE OPPOSES.

George continued at the North, passing from his preparatory studies to Harvard, where he began a college course, interspersed with sundry visits home during vacations. Ethel, after three years in Charleston, had returned home.

For her sake the squire began to give solemn dinner parties three or four times a year. For her sake he accepted invitations to other lugubrious entertainments, given here and there on the Sea islands by families as antique, proud and straitened as himself.

Major Luce and family were at first invited. George, then home on a vacation, was included; but when the squire heard that this young man had inveigled Ethel into the garden summer-house and kept her there for an hour, while sober dancing was going on in the spacious old parlors of Courtney Hall, the invitation was not repeated.

Some time after this George wrote Ethel a letter from Harvard. While she was reading the same at a hall window, she was detected by her father.

"What have you got there?" he demanded, testily.

"Only a note from Geo—from young Mr. Luce," replied she, in some confusion.

"What's that?" cried the father, purpling to his Jacksonian wall of gray hair. "Has that young scamp had the audacity to write to you? Hand it here!"

Without a word she held forth the offending missive, which the squire jerked from her hand and held close to his nose while reading. "My dear Miss Ethel," what odious familiarity! "Have thought of you so much lately." The devil he has! "Your sweet face and the memory of your last words—What right have you to be giving him last words, miss? Hm-m-m. 'Shall never forget our childish frolics together.' What does he mean by that?"

He glared at Ethel, who stood patting one little foot and looking frowningly out at the window. Then, crumpling the letter in his hand, he strode up and down the hall in an irritable manner.

"Let this be the last of this foolishness, Ethel," said he, between puffs and gesticulations. "I will not have you—a Courtney—receiving the clandestine attentions of an upstart Yankee. Pah! The whole thing smells worse than his father's bone factory. I shall forward this note to Major Luce, accompanied by a few comments of my own—"

"Papa, please don't," interrupted Ethel, startled into a sudden anxiety. "Why make a mountain out of a mole-hill?"

"A mole-hill," he said, sneeringly. "But not another word. Leave me, and tell Milus if he isn't here in two minutes, I'll run him off the place myself."

Ethel went down stairs, delivered the message, reascended to her own room, and did not emerge therefrom for several hours. After this there was a coolness between father and daughter, which, as his resentment died, grew burdensome to the squire. Ethel was usually a very song-bird in spirits and activity. Now she glided silently about, a bewitching martyr to pique and mute endurance.

The squire, amid his diatribes, felt the difference keenly. He missed the romping welcome, the ready kiss and the playful tyranny that had been his reward. At night he sat wearily in his arm-chair far into the night, hearing her footsteps overhead, and remembering how late she used to sit with him and how early she left him now.

One day in dismounting from his horse he fell, and Ethel met him, leaning upon his servant's shoulder.

"Only a sprain," said he; yet he groaned for an hour while she silently poured cold water on his swollen instep.

As he grew easier, the sight of her grave, anxious face renewed his yearning, and in his weakness his old eyes grew moist. He closed them, and two tears rolled down and hid themselves in a fat furrow.

In a twinkling Ethel was on her knees, with her arm around his neck in the old familiar way. She laid her face on his shoulder, and her other hand sought his own with a swift, warm pressure. And thus, without a word, their reconciliation has made.

CHAPTER IV.

GEORGE PAYS A CALL.

While George Luce was yet absent at the North, there came another suitor for Ethel's hand, in the person of Rudolph La Rue, a scion of one of the poorest and proudest of those old Carolinian families whom the squire loved to glorify. Captain La Rue, the young man's father, had consulted Squire Courtney on the subject, who graciously approved.

Thus, under a united family sanction, Rudolph began his courtship, with Miss Ethel icily indifferent to all outward considerations, apparently, except her father's whim-whams and endearments. Nothing further had, meantime, been heard of George Luce.

"They're a set of n'pstarts, sir," quoth the squire to Captain La Rue, alluding to the Luces. "The very money of that family smells of the way it has been made. I'm sorry I ever gave them a foot of land near me."

In fact, since his discovery of the letter, the antipathy of the squire had extended to the whole Luce generation. The major, when they met, was carelessly civil, and troubled his head about little but his business schemes.

"Courtney is eaten up with pride," he wrote to his son, "and his affairs seem to be at sixes and sevens generally. I hear his girl and old La Rue's son are to be married. It is a case of aristocratic pauperage all around, I fear."

When George came home to stay, his father wanted his son to learn his own business, promising to take him into full partnership in a year or two.

"He is our only child," said the major to his



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R. 9.

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wife. "I have made some money. If George wants to enjoy it, the quicker he learns to manage affairs the better."

Meanwhile, the son took the first occasion to ride over to Courtney Hall to pay his respects to Ethel. Now there was a rival suitor, but George was not uneasy. He was aglow with a rash, sweet enthusiasm, a true lover's confidence in himself. During all those years at college, the image of Ethel Courtney had not faded from his heart.

He rode up the neglected avenue of pines leading to the old hall, pounded away upon the ancient dog's-head knocker, and waited in some excitement for the door to open. Milus, a little shabbier and shaggier than of old, appeared, and rolled his eyes in astonishment.

"Dunno whether Miss Ethel in de house or not," he replied dubiously to George's eager query.

"Look here," George produced a silver dollar. "These don't grow on every bush. Just tell her an old friend has called. An old friend, mind."

He entered the gloomy, antique parlor with its staring ceiling, dingy wainscot, its faded Brussels and its clouded portraits. While expectantly waiting, there came the sound of a heavy tread down the hall to the front door. His horse stood tied in full view, and directly he heard the squire calling to Milus, who shuffled back from the interior regions.

"Whose horse is that?"

"Good Lord, marse, I ain't deff," grumbled Milus.

Then came a jumble of subdued tones, after which in walked Squire Courtney, stiffly ceremonious and as red as a turkey-cock.

"Mr. Luce, I believe."

"The same, sir. I have just returned, and thought I would give myself the pleasure of calling upon Miss Ethel. Glad to see you looking so well."

"Miss Courtney, sir," interrupted the squire coldly, "does not see company privately."

"Ah, yes—I beg pardon," said George, rather frustrated. "I anticipated great pleasure in renewing our old acquaintance. Not without your sanction, of course."

"Well, sir, you have not got my sanction, by any means, especially in view of your singular way of inaugurating and proceeding."

"Sir, you surely cannot know how important the good opinion of Miss Courtney and yourself is to my future happiness."

"The devil you say!" The squire's bristles rose at once in the face of this bold plunge. "Let me tell you, sir, that your future happiness, as you call it, as far as my daughter is concerned, is a matter of supreme indifference to us both."

"I fail to see how I have deserved such treatment—" began George, but he was again interrupted.

"Enough of this," said the squire. "For your misdirected courtesy in calling I might thank you, had you called on me. But as regards Miss Courtney, your attentions are both inopportune and unwelcome."

"Squire Courtney, I cannot submit to this without speaking plainly. I love your daughter. I—"

"You dare to say this—to me?" roared the old man, purpling from his collar up. "Well, sir, I'll see you d—d, rather than listen further to such language. You Milus!"

George eyed the squire firmly as he replied: "Let me say in return, sir, that I find I have loved her for years. I'll win her if I can, spite of you and your ridiculous prejudices."

"You Milus!" thundered the squire, raging up and down like a caged tiger. "You Milus!" Then when Milus appeared, "Show this gentleman out."

George strode into the hall, half blind with passion over this rude rebuff.

"I low'd suthin' would sho'ly happen," whispered the negro. "But see hyur, sub; Miss Ethel, she done gone out—"

But George Luce rushed down the steps, threw himself on his horse and rode off at a gallop. Milus closed the door.

"Gret' king!" he muttered. "What gwine ter happen up nex? 'Nd now Calline'll be fer puttin' in her glab kase I let the pore boy in."

WILLIAM PERRY BROWN.

[To be continued.]

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Our Household.

PATHS.

The path that leads to a Loaf of Bread
Winds through the Swamps of Toil,
And the path that leads to a Suit of Clothes
Goes through a flowerless soil,
And the paths that lead to the Loaf of Bread
And the Suit of clothes are hard to tread.

And the path that leads to a House of Your
Own

Climbs over the bowldered hills,
And the path that leads to a Bank Account
Is swept by the blast that kills;
But the men who start in the paths to-day
In the Lazy Hills may go astray.

In the Lazy Hills are trees of shade
By the dreamy Brooks of Sleep,
And the rollicking River of Pleasure laughs
And gambols down the steep;
But when the blasts of winter come
The brooks and the river are frozen dumb.

Then woe to those in the Lazy Hills
When the blasts of winter moan,
Who strayed from the path to the Bank Ac-
count

And the path to a House of Their Own:
These paths are hard in the summer heat,
But in winter they lead to a snug retreat.

—Selected.

HOME TOPICS.

SUNDAY DINNERS.—A question which I have no doubt has troubled many of us is, do we keep the Sabbath when we have a more elaborate dinner on that day than on any other? No one can blame a housewife for wishing to make her table unusually inviting on that day. It is one of the ways of setting Sunday apart from the rest of the week, but let it be done by adding some unusual delicacy which can be prepared the day before. If we do our own cooking it becomes a necessity to either have a good part of our Sunday dinner prepared Saturday, or stay at home from church in the morning. If we have a helper in the kitchen is it right to oblige her to stay at home to cook an elaborate dinner?

In hot weather cold meats are more tempting than hot ones. Let them be cut in dainty slices and the plate garnished with parsley, nasturtium leaves and flowers, or some other garuish.

Pressed meats are nice, either chicken, beef or veal.

Salads may be prepared the day before, all except adding the dressing.

In cold weather there is beefsteak and lamb chops which may be cooked quickly, and for a change a meat-pie or chicken-pie can be made in a few minutes if the meat is cooked the day before. If hot vegetables are desired, choose those that will cook the quickest. Soup is just as good, and even better, to be made the day before, and will only require heating. Beets may be boiled on Saturday and then served as follows: Put a spoonful of butter in a frying-pan, when it is hot put in the beets, stir them around for a minute, then add a teaspoonful of vinegar in which you have stirred a teaspoonful of flour and a tablespoonful of sugar. Let it boil up for a minute and they are ready to serve.

Creamed parsnips may be prepared in a few minutes by boiling them in a little salted water the day before, then when getting the Sunday dinner, heat a cupful of thin cream and thicken it with a teaspoonful of flour mixed smooth with butter and seasoned with salt and pepper to taste. When this is boiling hot, lay the sliced, cooked parsnips in it, turning them two or three times until they are hot.



FANCY WAIST No. 2

There are so many desserts that may be prepared on Saturday for Sunday dinner that it is hardly necessary to specify. Cake and fruit, either fresh or canned, pies of several kinds, and blanc manges, jellies, ices, etc., of various kinds. I will only give two recipes:

QUEEN'S PUDDING.—Half a package of

gelatine soaked in two cupfuls of cold milk for two hours, then heat it to boiling, stirring until well dissolved. Add two well-beaten eggs, a pinch of salt, a teaspoonful of lemon extract and half a cupful of sugar. Let it cook for a minute or two, then pour half of this custard into a wet mold. When this has cooled, cover it with thin slices of stale sponge-cake, with some tart jelly spread between (raspberry is nice) and then pour in the rest of the custard and set the pudding in a cool place.

JONQUIL BLANC MANGE.—This is a pretty dessert for Easter Sunday, and requires three cupfuls of milk, one cupful of cold water, one cupful of sugar, two eggs, one teaspoonful of vanilla and one cupful of cream. Soak the gelatine in the water for two hours. Heat the milk to boiling, add a pinch of salt, a tiny pinch of soda and sugar, stir in the gelatine and cook until it is dissolved. Beat the yolks of the eggs very light and pour the boiling mixture into them slowly, to prevent curdling. Put the whole back over the fire and let it



HOUSE DRESS No. 1.

cook for two minutes, stirring constantly. Add the vanilla and pour the blanc mange into a wet mold with a tube in the center. This part of the pudding must be made on Saturday and put in a cool place until wanted on Sunday. Just before dinner on Sunday, whip the cream light with an egg-beater and mix it with the whites of the eggs, beaten to a stiff froth. Turn the blanc mange out on a large plate and fill the hole in the middle with the whipped cream and egg and pile it on the plate around the base of the blanc mange. If you have no mold with a tube, make a tube of paper and put in the middle.

THE CHILDREN'S SUNDAY.—It is often a question with young mothers whether children ought to attend church or not, and at what age they should begin to go. From observation and experience I answer the former question in the affirmative. It is easy to form the habit of church going when a child is young, and like other habits formed then, it is almost sure to be lasting. A child three years old, if well, will not be hurt by having to keep still one

hour of one day in seven. After a child begins to go to church do not let the question of going or staying ever come up, except in case of illness. Let it be a settled thing. Sabbath-school is good, but it ought not to be allowed to take the place of church. I would take a child to church first, and later to both Sabbath-school and church service.

Do not let the Sabbath be a day of gloom in the household, but one of "rest and gladness." Let it be set apart from all other days in every way. Save the brightest and best books, the choicest toys for that day, and let it be a day of the closest companionship between parents and children.

MAIDA McL.

HOUSE DRESSES.

As many ladies like to take the quiet time of Lent for much of the plain sewing, we give two very good suggestions of gowns to be made of summer materials. No. 1 can be of china silk, soft wool with silk fronts, or challis and silk, or the soft cottons. The skirt is a simple, round skirt, with full waist and sleeves, and empire belt, the trimming giving it a particularly chic look. The dress could also be worked up in two materials, making the puffs of the sleeves and skirt of one material and the skirt and waist of another.

In No. 2 we have a beautiful combination of wool and velvet. This could be used for an India silk also, and either of these answer very nicely for gingham, making the yoke of lace over a plain color to harmonize with the prevailing color of the goods.

FANCY WAISTS.

It is very hard to get a suitable costume for a girl "standing on the brink where the brook and river meet," but it is best to keep on the girlish line. The skirt should come to the ankles, and the waist can be from either of our illustrations. The one being a velvet waist over a guimpe of either the dress skirt material or a silk the same color, the flaring caps over the shoulder being faced out with the same.

In No. 2 the trimming can be either silk moss trimming the color of the goods, or an inch-wide ribbon slightly fulled.

FANCY APRON.

The fancy apron is made of swiss or soft mull, of simple pattern, and the top finished with a very open insertion, run through with baby ribbons. The top of the pocket has the same finishings. The bottom is a wide hem, simply hem-stitched.

L. L. C.

MY LADY'S OVERSHOES.

"Well, young woman, when you put on those rubbers I suppose you never stop a moment to think who made 'em, or anything about it."

"I confess I don't," said the young woman, pausing with one rubber fitting like a glove over her dainty leather boot, while the other stood on the floor near by.

"Maybe I wouldn't either,"

said Uncle Gene, "if I hadn't lived at a time when half my neighbors were in the rubber business, and I knew one man who seemed clean crazy about it."

Uncle Gene is about seventy years old and spent the first half of his life in New England. Such persons, it seems, know everything.

"I don't suppose I saw the first rubbers sold in this country," he continued, "for that was in 1820, when I was a baby, but I've heard my father tell about 'em. Boston is the biggest shoe market in the world to-day, and even then it had a fair trade in that line. So these first rubbers came to Boston. The Indians made 'em in South America."

"Did they look like these?" asked the young woman, pointing to her pretty feet.

"Well, not much! They were brogans. You know the material is the sap from a tree, maybe you remember its name, it's a word that knocks everybody down at a spellin' match."

"Oh, yes; caoutchouc," said the young woman, proud of her knowledge.

"In the country where it grows (five hundred miles north and south of the equator) folks don't have to spend much for current expenses. They live on three cents a day, and as for clothing, all they need is an apron."

"What a paradise!"

"Well, that's as you take it. But it seems that those South American fellows



FANCY APRON.

made clay lasts which they dipped in the sap of that tree, and every time they dipped 'em they smoked 'em. After thirty such performances the clay was broken and taken out. Then they dried the shoes pretty thoroughly and when they got to Boston (the shoes, I mean) they sold for from three to five dollars a pair."

"Mercy!" exclaimed the young woman.

"Now you know Yaukees weren't going to stand that very long, especially when the raw gum sold for only five cents a pound. So one of 'em went to tinkering with the gum and pretty soon he thought he had found out how to make rubber cloth. He told some other men, who put in their capital, and in an amazing short time the East was just wild on the subject. If you didn't invest in rubber you were an old foggy, or hadn't anything to invest. An' men got rich in a few weeks because they were in rubber. It was 'like striking' ile' in 1864, or natural gas in 1885."

Uncle Gene chuckled a little and then said:

"That was in 1833-34, and the biggest shop was at Roxbury. They turned out thousands of rubber coats, hats, boots and shoes. Daniel Webster lived on his place at Marshfield, then, and folks were always sending him presents of everything under the sun, and one day here came a rubber coat and hat. The next morning was rather cool. He took out his new garments, naturally wanting to try 'em on, but to his surprise, they were just as stiff as boards. He liked his joke, so he set up the coat on the front piazza, and the hat on top of the coat, and to a person goin' along the road it looked for all the world like Dan himself a sittin' there on his porch! That's just what folks thought, an' all that day the passersby bowed with the greatest reverence if they knew him, an' if they were strangers they went away bragging that they had seen him."

"I suppose Mr. Webster was laughing when he looked out the window and saw them!"

"Yes, it was one of his best stories. Well, the Roxbury company brought overshoes down to two dollars a pair."

"Bad enough!"

"Everything went well during the winter months, though the rubber goods were rather stiff, but good gracious! when spring came, the trouble began. Rubber wagon tops, if the sun shone, were too sticky to touch. On hot, rainy days, when people went to look for their overshoes all they found was a couple of lumps of rubber. All over the country these people went to their local dealers, carrying the lumps of rubber, and looking very discontented you may be sure. They naturally complained that they couldn't keep their overshoes on ice all the year round. Of course the local dealers sent the stuff back to the manufacturers."

"It was a bad time for Roxbury, wasn't it?"

"Indeed it was, and although we laugh at some of the ludicrous mishaps, it was indeed a calamity. Besides goods returned, all the stock on hand in the summer turned to stinking gum that was so offensive they had to bury it. Two millions of dollars were lost, and by 1836 all persons connected with the business were out of work, and many of them impoverished."

"Well, well! What turned up next?"

"That's the time when one man seemed to go clean crazy about rubber. His name was Charles Goodyear. Heaven help the wife of an inventor! I knew Mrs. Goodyear, an' 'pon my word the world owes rubber inventions as much to her as to her husband. They weren't well off when he began, for he had lately broken up in another business, but they had clothes and furniture remaining from their prosperous days. I suppose you've read about that Frenchman who invented porcelain? Well, this was his story over again. During the Roxbury furor, raw gum went up in value, but when Goodyear began his experiments, it was again down to five cents a pound. So he got his material pretty cheap. He spent days pottering around his wife's kitchen, heating his gum, and flattening it with her rolling-pin, and shaping and decorating till he, too, produced a pair of overshoes."

"Merey me!" exclaimed the young woman, "I wonder if I could have patience with such a man!"

"But as that was in the winter he put them away and thought he wouldn't brag about them till the next summer. But la! June melted 'em just like the rest."

In those days a man was imprisoned for debt, and every once in a while poor Goodyear was put in prison."

"Well, I think times have very much improved," said the young lady.

"He moved about from Philadelphia to New York and from New York to near Boston, getting worse and worse off. He pawned everything. His wife spun and sewed and kept the family from starving. Occasionally some one would help him a little, but you may be sure a good many people in New England just hated the name of India rubber. You know 'the burnt child dreads fire.' Well, sir," said Uncle Gene, forgetting that he was addressing a young lady, "he got so hard up that he sold his children's school books, got five dollars for 'em, so that he could go on with his experiments. He had six children and the neighbors had to keep them. One died when they lived near Boston and they hadn't a cent for the funeral expenses. I remember they walked to the graveyard."

"How long was all this going on?"

"Oh, for years. Goodyear was naturally a man of taste, but he got to be such a crank on the rubber business that he was a sight to behold. Of course he made some improvements in the stuff, and so, to advertise it and because he had nothing else, he went around dressed in a rubber coat, hat, and boots. Well, to make a long story short, it took ten years and a half for him to perfect his inventions. It seems that sulphur is the main ingredient which must be mixed with the gum, and then it must be submitted to a certain degree of

first. Several times he thought he had the secret. Once his disappointment was unusually cutting. He had produced what he thought was a fine quality of rubber cloth, and sent it to Washington. The president, Jackson, it was, thought it such a good thing that he ordered a hundred and fifty mail-bags made of it. This was the biggest feather that Goodyear had worn in his cap since he had been struck with the rubber craze. He told everybody about it, and with the greatest enthusiasm went to work. When the bags were done they were beautiful to behold. He hung them up and invited all doubting Thomases to come, see and handle. It was in the summer time, too, which seemed to increase his triumph. Just then he left home for a few weeks. On his return, the bags which he had left hanging, were all growing limp, and some of them had dropped off their handles!"

"And why didn't he make money at last?"

"Ah, it was the old story. One man works his life out to make a discovery and other men step in and enjoy the result. Goodyear never knew how to make a good bargain for himself. His patents were infringed. Once in a lawsuit the rubber pirates employed Daniel Webster to win their case and gave him twenty-five thousand dollars for his fee. Then Goodyear kept on making new discoveries, everyone of which cost him five thousand dollars."

Uncle Gene picked up the young lady's overshoe. He looked like the messenger of the prince in search for Cinderella.

"You see," he remarked, "when a man knows the whole history of the business he takes an interest in these little things. You ought to go to a factory where they are made. Girls and women do much of the work. A girl makes a pair in five minutes, and they cost?"

"Forty cents."

KATE KAUFFMAN.

HOW TO GUARD AGAINST GERMS.

The shepherd erects defenses and provides safeguards against possible enemies to his flock; and similarly, modern antiseptics shows how to effect defenses and provide safeguards against those terrible "wolves," disease germs, which lurk in every possible place, awaiting opportunity to steal in and prey upon the body. The other day I read an item in a paper about a young man who went to the dentist and had a tooth extracted, and in driving home took a cold which settled in the wounded gum, and blood-poisoning developed, which resulted in his death. Without doubt he lost his life in a perfectly needless manner, through ignorance of simple antiseptics. The "cold" and consequent blood-poisoning were due to the action of germs which found access through the torn and abraded flesh of the jaw. As long as the skin or the mucous surface of any portion of the body remains intact, germs and their mischievous doings are barred out. But any cut, torn or abraded place furnishes a ready avenue, the natural fortifications being destroyed; hence, artificial protection should be employed until the breach is repaired.

Listerine is perhaps the best antiseptic wash for the mouth, and this the dentist should have furnished the young man, or at least told him to procure it, for trouble is always liable to arise. Listerine is cooling and pleasant as a mouth wash, and it is sometimes given internally in cases of dyspepsia. Most disinfectants are poisonous to the human system, and that is why preference is given to it. A half teaspoonful is a valuable addition to the water in which one brushes the teeth, keeping the mouth sweet. Camphor is a domestic remedy which nearly every family uses, and its chief merit lies in the fact that it is quite a powerful antiseptic, both the alcohol and gum camphor being germicides; that is, they possess the quality of killing germs. In a case like that instanced at the outset, the "cold" is likely to be only the inflammation which is set up by germs and the poison which they manufacture; but sup-

pose the young man did chill his face so that its blood-vessels were congested, then if he had used spirits of camphor or listerine freely inside and hot applications outside for a few hours, or even a day or two, if the pain and swelling were severe, there would have been small danger from blood-poisoning. Whatever germs had been taken in from the air or with the food would have been destroyed, and nature would have attended to the healing process very rapidly if unhindered. Boracic acid is another cheap and harmless disinfectant which is excellent to use as a mouth wash or in



HOUSE DRESS No. 2.

dressing burns, cuts or places where the skin is rubbed off.

Another instance where blood-poisoning is much more likely to ensue is from a wound by an old nail or piece of tin or barbed wire which has lain in the ground for sometime. The specific harm is not in the nail, or that it is old and rusty, or in the old tin or whatever causes the wound. The danger comes from germs which are liable to be present in the earth and which have infected these articles, and if taken into the body they are propagated in the blood and result in tetanus or lock-jaw.

Horses and other animals sometimes have this disease, and one way in which the germs are scattered about is from the clearing up of barn-yards. Dr. Kellogg stated in a sanitarium lecture that the first thing to do in case of accident of this kind was to remove the foreign substance, the nail or whatever it was, as soon as possible, and encourage rapid elimination of the poisonous matter. To do this, cleanse the wound first with warm water and then with a five-per-cent solution of carbolic acid—the proportion of half a dram of carbolic acid to an ounce of water will make a solution a little stronger than five per cent, but not too strong to use in such a case. Have this solution of carbolic acid and water just as hot as can be borne, and soak the foot in it long enough to make sure that the germs are all killed; an hour or two is none too long if the wound is deep. If a cut, it may next need a few stitches. It must then be dressed so as to exclude germs from the air.

Disinfectant cotton—that which is boiled

in a solution of bichloride of mercury and then dried—is the best if it can be procured. Cover with oil silk and bandage neatly with the expectation of leaving it untouched until it is healed. If the disinfectant cotton is not at hand, take plenty of clean white rags and boil them in a solution of carbolic acid, dry them in the oven to prevent possible contamination, and wrap the wound closely in these, and bandage as before directed. It should heal perfectly in a week or ten days without further attention. If no disinfectant solution can be procured, cleanse the wound thoroughly in water that has been boiled for half an hour and allowed to cool to such a degree that it can be borne. Do not cool it by pouring in water which has not been boiled.

By boiling the water is sterilized, and for cleansing ordinary wounds it is usually quite sufficient, though it is always better to employ some one of the germicides before named. Bichloride of mercury is the most powerful of all, but as it is a deadly poison, colorless, odorless and almost tasteless, it is very dangerous to have around unless the greatest surveillance is exercised.—Helen L. Manning, in *Farmers' Review*.

A BRILLIANT SUGGESTION.

One of the penalties of illness long continued is that there stands against the invalid restored to health a long account to settle. She is behindhand in everything. No philosophy can sustain her, nor tenderness altogether console. For the baby's dresses stare her in the face; it is weeks already since they should have been shortened. And her visits are a nightmare, with cards piled inches high. And worse than all, if she has a mind both sensitive and alert, there are all the things the world has done and thought and settled without her ever knowing.

So when her first visitor refers to a new book, she is bewildered. And when her husband talks of questions of the day, or her bright boys or girls ask questions, or people expect her to have opinions about things she has never heard of, then she wishes she was back again in bed, where nobody expected her to know or think, and people were only sorry.

To such a woman to be out of touch with the thought about her is worse than for many another, weak to faintness, to find baskets full of clothes to be darned.

It was to some sympathetic soul that an idea of relief for such as these first suggested itself. She realized it must come from a stranger, and from one who was paid; for no sick person likes people in her room whom she cannot order out again. She may considerably suffer the kindly-meant and prolonged attentions of a friend one day, but the next day, poor soul, she will beg the family to keep the friend away.

Therefore the visitor must be a paid one, so that her stay may be shortened or prolonged at the invalid's will. Then she must be a woman of reading—knowing what the papers and periodicals have said, what the best of the last books is about, what the new pictures are, and the play, and what the world is thinking. In a little while, in half an hour or so of easy talk, she can give most of this—to-day discuss a picture, to-morrow a book, and next day perhaps an affair of the government, the invalid deciding or not, as she chooses, what she is to talk about.

Quite as good as all this is for the convalescent, it is—one is tempted to say—even better for that other woman. It opens up to her one more avenue of work. A gentlewoman, with tact and taste and discretion, one with graceful speech and a ready sympathy, never palling into condolence, would be a ray of sunshine and gladness in the room of any invalid. If added to this she has the quality of mind by which she could catch, however lightly, the drift of the world's opinion, she would be a double benefactor. There is room and need for her and all she can do—opportunity for great service to others, and for great good and profit to herself.—*Harper's Bazaar*.

CAKE RECIPE.

One and one half cupfuls of sugar and one egg beaten together, one half cupful of sour cream, and fill the cup up brimming full of sour milk, three cupfuls of flour in which is sifted one teaspoonful of soda. Beat the batter thoroughly and flavor as preferred. This recipe makes quite a large cake, or if baked in layers will make five. If used for layer cake, do not use quite so much flour.

GYPSY.



FANCY WAIST No. 1.

heat. But so exact must be the proportions, etc., that he had a long road to find the truth. He used a great deal of money from folks who helped him, and at last his brother-in-law, who was providing capital when success came, had spent forty-six thousand dollars."

"But of course he made a fortune at last," suggested the young lady.

"I wish that I could say that he did. My sympathies were with the man from the

Our Household.

DE MASSA OB DE SHEEPFOL'.

De massa ob de sheepfol'
Dat gnard de sheepfol' bin,
Look out in de gloomerin' meada's
Wha' de long night rain begin—
So he call to de hirelin' shepa'd,
Is my sheep, is dey all come in?

Oh, den says de hirelin' shepa'd,
Dey's some dey's black an' thin,
Ad' some dey's po' ol' wedda's.
But de res', dey's all brung in,
But de res', dey's all brung in.

Den de massa ob de sheepfol',
Dat guard de sheepfol' bin,
Goes down in de gloomerin' meada's
Wha' de long light rain begin—
So he le' down de ba's of de sheepfol',
Callin' sof', Come in, come in,
Callin' sof', Come in, come in.

Den up t'ro de gloomerin' meada's,
T'ro de col' night rain an' win,
An' up t'ro de gloomerin' rain-paf
Wha' de sleet fa' pie'cin' thin,
De po' los' sheep ob de sheepfol'
Dey all comes gadderin' in,
De po' los' sheep ob de sheepfol'
Dey all comes gadderin' in.

—Sully Pratt Maclean.

A GOOD MOTHER.

THE writer not being a mother, it may be thought that she has no right to theorize on the subject. But it is often urged in literature that a critic is only a critic, and as such he excels all members of the other literary arts. For instance, an excellent writer of stories cannot criticise a story. A poet cannot criticise a poem. A critic, on the other hand, cannot produce either poem or story, but he can point out beauty or defects in both. Apply the case to motherhood. A woman who never reared her own child, may for that very reason see more clearly how a child ought to be reared.

In a certain periodical appears this paragraph:

"I know very remarkable women in every branch of industry and art, but I know but one or two excellent mothers. There is more good-for-nothingness and short-sightedness masquerading under the name of 'devoted mothers' than in any other phase or sphere of life."

There is something startling in this, but it is said in so oracular a tone that we are constrained to give, at least, qualified assent. The author blames mothers when daughters go astray, assigning the reason as follows:

"It is the duty of parents to plan pleasure trips for their daughter, and to see that she has snitable companions for her age. They have no right to expect her rich, young blood to flow calmly and slowly as their own depleted life fluid."

There was much more of the same surprising kind. The accusation was that youth is starved. This has the nature of novelty. All the rest of us think that children have pretty much their own way. Daughters themselves plan the pleasure trips and parents give their indulgent consent. If we could consult statistics concerning girls who leave home clandestinely or make runaway marriages, we should find most of them the result of over-indulgence.

Since we live in an age when everything is reasoned about, some philosophers make the assertion that not all women are called to be mothers. It is only in a natural, even animal state of society that every female creature is expected to produce offspring. Now, since mental and physical health are requisites of good motherhood, many women should remain unproductive, and the aim of the mother, first, last and all the time, should be to improve her state of health.

Of course, a child has two parents, and he may not inherit the qualities of his mother alone, but there is not much likelihood that he will be better than his mother. All women feel this, and (except in very few cases) motherhood brings with it an aspiration toward noble thoughts and deeds.

Do you not all agree that in training a child it is not so much what the parents do as what they are?

"By their fruit ye shall know them."

"A good vine bringeth forth good fruit."

These are truths; take them as you please, literally or figuratively. Therefore the good mother first makes herself a good woman.

Tenderness is essential to good motherhood. Not the short-sighted tenderness

of the present, but that which covers the welfare of a lifetime. Saint Paul, while he was not a father, was a fine critic of fatherhood. He said: "We had fathers of our flesh which corrected us, and we gave them reverence. Now no chastening for the present seemeth joyous, but grievous; nevertheless, afterward it yieldeth the peaceable fruits of righteousness." If in a family the children are so unfortunate as to have one parent "strict," as we call it, and the other of an opposite disposition, if not when young, surely when they reach mature age, the children will give reverence and thanks to the parent who insisted on being obeyed and having his judgment respected. The same thing is seen in school. Children have a contempt for the teacher of lax discipline, and honor the one who "makes them mind." It is much easier to give consent to children's wishes. The desire to gratify them is strong in a loving heart. Therefore to say "no" indicates fine moral and intellectual qualities in a mother. She must have brains to reason out the greater against the lesser good. She must have perseverance and energy. Every art, that of sculpture, painting, authorship, is noted for requiring patience. Stroke by stroke for years and years the ambitious artist must practice his work. It is the same in the art of training children, only it requires more patience.

Here again what you are nites with what you do. These fine qualities which you possess shall be inherited by your children, and you will find good material in their minds and hearts.

Some persons accuse the present generation of being more unruly than those of former times, but in a book almost a hundred years old this paragraph is found:

"When I go sometimes to stay with a friend in town to do business, she is always making apologies that she cannot go out with me, 'her daughters want the carriage.' If I ask leave to see the friends who call on me in a certain room, 'her daughters have company there.' If I wish to send a message, 'her daughters want the footman.' Certainly, this is the children's world."

Not the time so much as the state of society decides who shall have precedence, parents or children. It is said that an old courtier of the reign of Louis XV was asked which he preferred, the days of his youth or the present. He replied, "I am unlucky. When I was young, I was obliged to respect the old. Now that I am old, it is the fashion to respect children."

The good mother teaches her children manners. Here again, not only heredity but imitation enforce the principle that it is less what a mother says than what she is. Not the preaching but the practice (unless preaching and practice go together) form the child's behavior.

Miss Frances Willard tells how she and her brother and sister were trained when they lived in a solitary country place. "Our mother made us walk with books upon our heads," she says, "so as to learn to carry ourselves well, and she went with us through the correct manner of giving and receiving introduction—though to be sure, 'there was nobody to be introduced,' as the brother said. 'But there will be,' replied our mother with her cheerful smile." Mrs. Willard often gave her children little lectures about good manners and insisted on them "having nice, considerate ways," which "are worth far more than money in the race of life."

When mothers are wise, we seldom see that their "depleted blood" makes them unfit to choose their children's pleasures nor to share them. It is not the "blood" so much as the common sense which in mature life is a snitable guide for youth. Girls at the marriageable age need not so much pushing out as wholesome restraint. Dr. Lyman Beecher used to quote with approval, "Let nature caper." Nature is quite apt to caper whether you let her or not, but as lambs do most of their frolicking at their mothers' sides, so should daughters.

When mothers teach their children manners they are fitting them for society. There is an equally important duty in fitting children for happy solitude. Nothing is a more pitiable sight than a person destitute of self-resources. The child who cannot amuse himself, who must always have "some one to play with," is not properly trained. If the good mother's duty had to be expressed in one rule, it would be, "Teach your child industry." Persons who have seen all sides of life, and have gained its main prizes, love and wealth, say, "After all, the chief joy of existence is occupation." "Congenial work makes life worth living," is the verdict of wise men.

The habit of work is what a child must be taught, then he himself will find the kind of work he prefers. Work is an amusement which includes self-support and social independence. The busy person seldom pines for companions or imagines himself slighted or unappreciated.

As a pleasure of solitude, we suggest reading. A taste for this can be taught, and the good mother will know how to direct it aright.

And now having reviewed the qualities essential for a good mother, let us go back to the statement which suggested our train of thought.

"I know of very remarkable women in every branch of industry or art, but I know of but one or two excellent mothers."

We pity the author of that sentence. Take any street in a small town, and certainly, even there can be found "one or two excellent mothers." The fact is, while acknowledging the complicated nature of their merits, we are amazed at the large number of good mothers. Their wise guidance, their sympathetic advice, their firm management, their unfailing patience, their beautiful commingling of judgment and mercy, their unbounded devotion, their unfailing love! While a few women fail in the great industry and art of motherhood, the majority succeed grandly. Not all of them have their successes told to the world. But many do, for wherever success is achieved by man or woman it is attributed by these grateful children to the training received from good mothers. A vast number, no less good, pursue the even tenor of life measuring their tasks to

"The level of every day's
Most quiet need, by sun or candle light."

KATE KAUFFMAN.

MEN'S FULL-DRESS SHIELD.

The front of this tasty article is made of quilted satin, of any color preferred, though black is considered in best taste. The



FULL-DRESS
SHIELD.

lining is either white or cream-colored sash or China silk, and there is an interlining of cotton wadding. The collar should have an interlining of canvas, but can be omitted altogether, as it is apt to crush the tie. The edges are neatly hemmed, or bound with narrow ribbon the color of the front, and the shield is held in place by

straps of ribbon, one of which has a small buckle on the end. The shield should be nine inches wide and twelve inches long, and requires twenty-four inches of satin half a yard wide, and the same amount of lining silk.

S. AMELIA R.

HINTS ON HOUSE CLEANING.

CARPETS.—Raise carefully from the floor, fold toward the center, so as to keep the dust in, and carry some distance from the house. To clean, beat with switches, first on the wrong side, then on the right side. After beating, spread on the grass and shake, then sweep thoroughly. Next, mend and wash out spots with water in which a small portion of borax or ammonia has been mixed.

Prepare the room for the carpet by first taking up the dust with a mop wrung dry, then washing the floor with water in which some turpentine, borax or camphor has been placed. These drugs prevent the ravages of moths.

After the floor dries, to save the carpet from wear, tack down carpet-board or lay several thicknesses of newspapers over the floor (printer's ink is also a preventive of moths), or what is still better, cover the floor with a thin layer of straw. An old comfort cut in strips makes an excellent lining for stair-carpet. Turn the carpet in putting down, and if the shape of the room permits, so change the carpet as to shield the worn parts from constant wear.

After a carpet is down, it brightens it wonderfully to wipe it off with a flannel cloth wrung dry from ammonia-water, changing the water frequently.

To wash a carpet, rip and place in a tub or barrel. Use plenty of good suds made with soap, ammonia and warm water. After a thorough washing, rinse well. A rag carpet can also be washed by laying down on a clean floor and scrubbing and rinsing thoroughly. To clean matting, wash with weak salt-water and dry thoroughly.

Floor oil-cloths will wear three times longer if they are given, before using, two coats of linseed-oil, and when dry, two coats of varnish. If the oil-cloth is already

in use, it can be preserved by applying the oil and varnish after it has been washed off with borax-water. To clean oil-cloth, wash off with borax-water, wiping dry, then rubbing it with a cloth wrung from sweet milk. The milk makes a nice polish on the oil-cloth.

Zinc can be cleaned by rubbing hard with a cloth dipped in kerosene or with a solution of ammonia-water.

WOODWORK.—As soap takes the oil from paint, it should not be used to clean painted or oiled woodwork. To clean paint, use warm ammonia-water (a teaspoonful of ammonia to a quart of water) or whiting. To apply whiting, dip a flannel cloth in warm water, then in the whiting, and rub on the paint, after which rinse in clear water. Black tea is good to clean varnished paint. Wipe off oiled or varnished woodwork with a flannel cloth wrung from warm water, after which rub with linseed-oil.

WINDOWS.—To remove a broken pane, loosen the putty by passing a hot iron over the putty. To take paintspots off window-panes, rub hard with hot soda-water. To wash windows, use a tablespoonful of coal-oil to a quart of hot water, or a teaspoonful of ammonia or a little borax to a quart of hot water. After washing with this solution, rinse in clear water and polish with soft paper. Use a sharp-pointed stick to clean the accumulations from the corners of the sash. Do not clean windows when the sun shines on them, as they dry before they can be properly polished.

SOPHIA N. R. JENKINS.

MENDING GRANITE-WARE.

Granite-ware is so superior to tin in every respect, except that it is not supposed to be capable of being mended.

We have a plan that answers very well, and will repair a basin so that it may be used for many purposes, if not quite as good as new. Have you ever seen the copper rivets that machinists use? They can be bought at any hardware store, and are of different sizes. When a hole is discovered in a basin, break away the thin edges and drive through a copper rivet of desired size, and hammer the rivet down tightly on both sides. A little practice will enable one to do quite a nice piece of work, and render useful a basin that would otherwise be thrown away.

Granite-ware is rather expensive to begin with, but it is so durable and nice that it may be the cheapest in the end, especially when they can really be mended, after all.

After the granite kettles are too badly worn to fix any more, and leak badly, just paint the outside and use them for hanging-baskets for plants. They make pretty ones. Be sure to put a good layer of broken crockery and charcoal over the bottom, before the earth is put in, so as to be sure of good drainage. Begonias are very good to use in hanging-baskets, as they prefer warmth and a rather dry soil.

GYPSY.

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LOVE'S SEASON.

In sad, sweet days when hectic flushes
Burn red on maple and sumac leaf,
When sorrowful winds wail through the
rushes,
And all things whisper of loss and grief,
When close and closer bold frost approaches
To snatch the blossom from nature's breast,
When night forever on day encroaches—
Oh, then I think I love you best.

And yet when winter, that tyrant master,
Has buried autumn in walls of snow,
And bound and fettered where bold frost cast
her
Lies outraged nature in helpless woe,
When all earth's pleasures in four walls ceu-
ter,
And side by side in the snug home nest
We list the tempests which cannot enter,
Oh, then I say that I love you best.

But later on, when the siren season
Betrays the trust of the senile king,
And glad earth laughs at the act of treason,
And winter dies in the arms of spring,
When buds and birds all push and flutter
To free fair nature so long oppressed,
I thrill with feelings I cannot utter,
And then I am certain I love you best.

But when in splendor the queenly summer
Reigns over the earth and the skies above,
When nature kneels to the royal comer,
And even the sun flames hot with love,
When pleasure basks in the luscious weather,
And care lies out on the sward to rest—
Oh, whether apart or whether together,
It is then that I know that I love you best.

—Ella Wheeler Wilcox.

SUMMER VISITORS.

Now that the summer months are ap-
proaching, country people will no doubt be
invaded with summer visitors, city rela-
tives and friends who come out for a
glimpse of the green fields. The young
people will be home from school, bringing
with them a friend for a week or two; the
minister comes with his wife and children.
All summer long the farm has its visitors.
Having lived the greater part of my life in
a country home whose doors are always
flung wide for any who choose to enter, I
feel that I might write a volume on the
trials and tribulations, the joys and happi-
ness that these summer guests bring.

When some of them take their departure,
what a sigh of relief involuntarily escapes;
when the time comes for others to go, we
feel that we might say, "Stay with us
always." We do not always have the privi-
lege of choosing our guests—some come
at our bidding, others are thrust upon us.
There is a class of guests who are purely
selfish; in plain Anglo-Saxon, they come
merely for something to eat. When such
a guest arrives, if you happen to have some
cold boiled cabbage or rice, just make it a
prime factor of the meal.

Then there is the guest who is selfish in
another way. He shuts himself within
himself and seems to enjoy nothing, makes
no attempt to be social, and is evidently
bored with what seems to him the pros-
perity of the country. Why he comes, why
he stays, is a mystery.

There is another guest with whom I want
to deal charitably yet truthfully. He
comes to you and enjoys your hospitality,
and he gives you a cordial invitation to
visit him. You or some member of your
family take him at his word, and rather
anticipate a return visit with him. You
happen to be in his city, you meet him; he
isn't very glad to see you, but in a half way
invites you "around to the house." Of
course you don't go, and while he falls away
down in your estimation, you are bound to
feel a little hurt, as well as indignant,
when you remember how easily he took
the hospitality which you so cheerfully
bestowed. While we know he exists, we
are pleased to consider him a "rara avis."
We don't enjoy being disappointed in
people.

Then there are guests who are always
thrill welcome. They come because they
want to see you, because they want to be
a part of your household. They are always
interested in whatever you are; they con-
sider it their duty to entertain as well as to
be entertained.

A guest who comes from the city brings
new ideas with him. He who brings us
new thoughts, thereby diffusing something
out of the ordinary into our lives, is an
appreciated and welcome guest.

When inviting people to your homes, do
not forget "the lame, the halt and the
blind." See to it that some such guest en-
ters your house each year. The fresh-air
children who come each summer to the
country are usually welcome, for the
hostess feels she is doing good to those less
fortunate than herself.

There is something, my good sister, that
you must not forget. Do not invite so
many people or do not receive, if they come
unbidden, so many people as to cause you
to feel you have a burden.

Summer brings its additional cares any-
way, and you owe a duty to yourself and
family that you cannot give if you have
too many strangers within your gates.
There is a sacredness about the home altar
which cannot suffer a constant invasion.

If you have invited a guest and he in-
forms you of his coming at a time when
you cannot conveniently receive him, in
all candor tell him so. There is no reason
why you should against your will make
your house a public inn. Have guests
always when you can without too great a
sacrifice, but don't go beyond a reasonable
limit.

MARY D. SIBLEY.

AN AUBURN MIRACLE.

AN ACT OF HEROISM IS FOLLOWED BY DIRE
RESULTS.

EDWARD DONNELLY SAVES A LIFE ALMOST AT
THE COST OF HIS OWN—AFTER YEARS OF
SUFFERING HE IS RESTORED TO HEALTH
—HIS STORY AS TOLD TO A REPORTER
OF THE AUBURN BULLETIN.

(Auburn, N. Y., Bulletin.)

It is on record that upon a chilly April
day, a few years ago, an eight-year-old boy
fell into the East river at the foot of East
Eighth Street, New York, and when all ef-
forts to rescue him had failed, Edward Don-
nelly, at risk of his own life, plunged into
the water and, when himself nearly exhaust-
ed, saved the boy from drowning. It was a
humane and self-sacrificing deed, and re-
ceived deserved commendation in all the
many newspapers that made mention of it.
Edward Donnelly was then a resident of
New York City, but his wife was Amanda
Grantman, of Auburn, and sister, Mrs.
Samuel D. Corry, of No. 71 Moravia St.,
which gave a local interest to the incident.
All this was some time ago, and both it and
Mr. Donnelly have passed out of the mind
of your correspondent until, a few days
ago, while in Saratoga, he was shown a let-
ter to a friend, from which he was permit-
ted to make the following extract:

AUBURN, N. Y., Oct. 26th, '92.

I am taking Dr. Williams' Pink Pills.
They have cured me of that terrible disease,
Locomotor Ataxia. When I commenced
taking them I was wholly unable to work
and nearly helpless. I am now improved so
much that I have been picking apples and
wheeling them to the barn on a wheel-
barrow. Yours truly,

EDWARD DONNELLY,
71 Moravia St., Auburn, N. Y.

Immediately on reaching Auburn, your
correspondent called at the above address
and found Mr. Donnelly out in a barn,
where he was grinding apples and making
cider with a hand-press, and he seemed well
and cheerful and happy.

Moravia Street is one of the pleasant sub-
urban streets of Auburn, and No. 71 is
about the last house on it before reaching
the open country, and nearly two miles
from the business center of the city.

"Why, yes," said Mr. Donnelly, "come
into the house and I will tell you all about
my case and how Pink Pills cured me, and
will be glad to do it and to have it printed
for the benefit of others, for I am sure I owe
my restoration to health and happiness
wholly to those simple but wonderful Pills." And then, in the presence of his wife and
Mrs. Corry and Mrs. Taylor, who all con-
firmed his statement, he told your corre-
spondent the story of his sickness and of
his restoration to health by the use of Dr.
Williams' Pink Pills for Pale People.

"I was born in Albany, N. Y., and am 42
years old. The greatest portion of my life
I have lived in New York City. I was gen-
eral foreman there of the F. A. Mulgrew
Sawmills, foot of Eighth Street on the East
river. It was on the 29th of April, 1889,
that the boy fell into the river and I re-
scued him from drowning, but in saving his
life I contracted a disease which nearly cost
me my own. Why, sir, I am sure I should
have died long ago if Pink Pills had not
saved my life, and I wouldn't have cared
then, for my sufferings were so great that
death would have been a blessed relief; but
now, thank God, I am a well man again
and free from pain and able to work and to
be happy.

"You see, when I saved the boy I was in
the water so long that I was taken with a
deadly chill and soon became so stiffened
up and weak that I could neither work nor
walk. For some time I was under treatment
of Dr. George McDonald. He finally said
he could do nothing more for me and that
I had better go into the country. On the
1st of last June (1892), my wife and I came
up to Auburn. I was then in great pain,
almost helpless, the disease was growing
upon me and I felt that I had come to the
home of my wife and of her sister to die.

"When the disease first came upon me
the numbness began in my heels, and pret-
ty soon the whole of both my feet became
affected. There was a cold feeling across
the small of my back and downwards, and
a sense of soreness and a tight pressure on
the chest. The numbness gradually ex-
tended up both legs and into the lower part
of my body. I felt that death was creeping
up to my vitals, and I must say I longed for
the hour when he should relieve me of my
pain and misery. I was still taking the
medicine [It was Iodide of Potassium,]
said his wife] and was being rubbed and
having plasters put all over my body, but
with no benefit.

"The latter part of last June I learned of
the case of Mr. Chas. Quant, of Galway, in
Saratoga county, cured by the use of Dr.
Williams' Pink Pills for Pale People. I had
never heard of those blessed Pills before,
but I thought if they could cure Mr.
Quant of the same disease with which I
was afflicted, perhaps they would also cure
me. So I sent to the Chas. H. Sagar Com-
pany, the popular Auburn druggists and
chemists at 109 and 111 Genesee St., and got
three boxes of the Pink Pills and began
taking them at once, following all the direc-
tions closely. In three weeks' time I was
so improved that, from being helpless, I
was able to help myself and to get up and
go to work, and to walk every day from No.
74 Walnut St., where I then lived, to Os-
borne's New Twine Factory, Seymour and
Cottage Streets (more than a mile), where I
was then employed, but all the while I was
taking Pink Pills.

"Then Dr. Patchen, of Wisconsin, uncle
of my wife, and who was here on a visit,
began to poo-poo at me for taking Pink
Pills, and finally persuaded me to stop
taking them and to let him treat me. When
he returned to the West he left prescription
with Dr. Hyatt, of Auburn, who also treat-
ed me. But their treatment did me no good,
and after a while the old trouble returned
and I was getting bad again. Then I began
again to take Pink Pills; have taken them
ever since, am taking them now; have taken
in all nearly 20 boxes, at an entire cost of
less than \$10.00 (my other treatment cost me
a pile of money) and again I am well and
able to work.

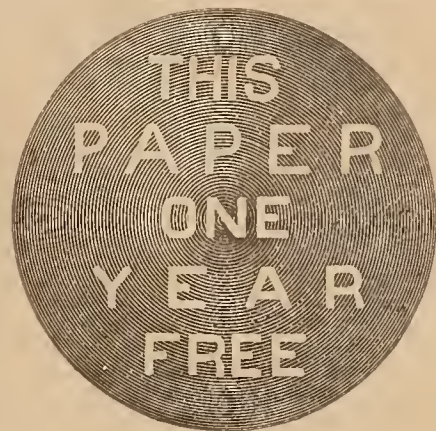
"In New York Dr. McDonald said my
disease was Locomotor Ataxia. He treated
me by striking me on the knees without
giving me pain; by having me to try to
walk with my eyes closed; by trying to
stand first on one foot and then on the
other, but I couldn't do it, and so after a
while he said I had Locomotor Ataxia and
was incurable, and that I had better go into
the country among my friends, who would
make the few remaining days of my life as
comfortable as possible and give me kind
attendance. Well, I came, or rather was
brought from New York into the country,
but instead of dying, I am a well man—
nearly as well as ever before in my life.
Pink Pills did it. If I was able I would, at
my own expense, publish the virtues of
Dr. Williams' Pink Pills to the whole
world and especially in New York City,
where I am much better known than I am
here.

"Another thing," said Mr. Donnelly, "I
am sure that the Pink Pills for Pale People
(and they are well named) are the best rem-
edy for impure blood and the best blood
maker in the world; why, when I was sick
and before I took them, if I cut myself, the
very little blood that came from the wound
was thin and pale and watery. A few days
ago I accidentally cut my hand slightly
and I bled like a pig, and the blood was a
bright red. Just look at the blood in the
veins of my hands." So indeed they were,
and his cheeks also wore the ruby flush of
health, with which only good blood and
plenty of it can paint the human face.

Your correspondent again called upon
Chas. H. Sagar Co., at their request. They
were much interested in the case and cure
by use of Dr. Williams' Pink Pills, and
told of several other instances which had
come to their knowledge, where the use of
Dr. Williams' Pink Pills had proved effica-
cious in making most wonderful cures.
These pills contain in a condensed form all
the elements necessary to give new life and
richness to the blood, and restore shattered
nerves. They are an unfailing specific for
such diseases as locomotor ataxia, partial
paralysis, St. Vitus' dance, sciatica, neural-
gia, rheumatism, nervous headache, the
after effects of la grippe, palpitation of the
heart, pale and sallow complexions, and
that tired feeling resulting from nervous
prostration; all diseases depending upon
vitiated humors in the blood, such as scrofu-
la, chronic erysipelas, etc. They are also
a specific for troubles peculiar to females,
such as suppressions, irregularities and all
forms of weakness. They build up the
blood and restore the glow of health to
pale and sallow cheeks. In the case of
men they effect a radical cure in all cases
arising from mental worry, overwork or
excesses of whatever nature.

These Pills are manufactured by the Dr.
Williams' Medicine Company, Schenectady,
N. Y., and Brockville, Ont., and are
sold only in boxes bearing the firm's trade-
mark and wrapper, at 50 cts. a box, or six
boxes for \$2.50. Bear in mind that Dr.
Williams' Pink Pills are never sold in bulk
or by the dozen or hundred, and any dealer
who offers substitutes in this form is try-

ing to demand you and should be avoided.
Dr. Williams' Pink Pills may be had of
all druggists or direct by mail from Dr.
Williams' Medicine Company from either
address. The price at which these pills are
sold make a course of treatment compar-
atively inexpensive as compared with other
remedies or medical treatment.



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Our Sunday Afternoon.

EACH DAY.

BY ANNIE WALL.

Each day do some kind Christian deed
To help and bless,
The sweet fragrance of love,
Some ones distress.
Life's way is full of thorns that pierce
And toil and pain;
But he who helps another's need
Lives not in vain.

Each day, as light breaks in the east,
Let your own heart
In God's own sin-dispelling light
Have glad some part.
In nature every morn begins
A new, clean day,
Begin each day with love renewed
In God's own way.

'Tis worth our prayerful care to see
That every thought
That enters our own heart is pure;
So harbor naught
That is unclean. Of thoughts upright
Are born good deeds,
As God records them, holy lives
Count more than creeds.

The hand that holds to thirsty lips
A cooling drink,
Has done a deed of love that holds
More than you think,
Perhaps, of good; God counts the thought
That prompts the act,
And he who did the best he could
Has nothing lacked.

Pueblo, Colorado.

SAYING GRACE AT A RESTAURANT.

BOYS, don't be ashamed of your religion! You would be proud to own allegiance to the stars and stripes in any land; be still more proud and glad to acknowledge the great Captain, who is your father.

A clerk and his country father entered a restaurant one Saturday evening, and took seats at a table where sat a telegraph operator and a reporter. The old man bowed his head, and was about to say grace, when a waiter flew up announcing, "I have beefsteak, codfish balls and potatoes." Father and son gave their orders and the former again bowed his head. The young man flushed hotly, and touching his arm, exclaimed in a low, nervous tone:

"Father, it isn't customary to do that in restaurants."

"It is customary with me to return thanks to God wherever I am," said the old man.

For the third time he bowed his head, and his son bowed his head, and the telegraph operator paused in the act of carving his beefsteak and bowed his head, the journalist pushed back his fish-balls and bowed his head, and there wasn't a man who heard that didn't feel as profound a respect for the old farmer as if he had been president of the United States.

OUR FATHER.

Anything like an interior life is out of the question without a filial feeling toward God. You must believe, you must trust. You must walk rather by your own faith about him than by his manifestation of himself. We creatures are in no condition to judge him by appearance. But our faith comprehends him. He is our father. This is his grand relation to us. Any acts of his which seem to contradict that, can only be transcendental proof of it. The problem of the world burus in some men's hearts like an uneasy fire. But if their whole hearts were on fire with the love of God, where would the problem burn them? There would be no room for it inside. God is my father, and he could not persuade me to the contrary himself. This is the position which faith takes up. It is the only position on which a spiritual life can be built.—F. W. Faber.

RIGHTEOUS JUDGMENT.

Never judge religion by its numbers. The times when religion has been the purest have been when its numbers were smallest.

Never judge religion by the amount of wealth. Lazarus had only crumbs and Dives had a fortune.

Never judge religion by its popularity. The best men of the past have usually been most unpopular in their day.

Never judge religion by the culture of schools. Education has often proved a snare and caused many to backslide. Books never washed a sinful heart clean.

Never judge religion by the class who embraces it. God knows no caste in heaven. The rich and the poor, the Brahmin and the Pariah are the same to him.

Judge religion by the way it teaches men to live and die. "By their fruits ye shall know them."—Christian Witness.

"THERE'S THE LORD'S ANSWER."

Many years ago when in my country charge, I returned one afternoon from a funeral, tired with the day's work. After a long ride, I had accompanied the mourners to the church-yard. As I neared my stable door I felt a strange prompting to visit a poor widow, who, with her invalid daughter, lived in a lonely cottage in an outlying part of the parish. My natural reluctance to make another visit was overcome by a feeling which I could not resist, and I turned my horse's head toward the cottage. I was thinking only of the poor widow's spiritual needs; but when I reached her little house I was struck with its look of unwonted bareness and poverty.

After putting a little money into her hand, I began to inquire into their circumstances, and found that their supplies had been utterly exhausted since the night before. I asked them what they had done.

"I just spread it out before the Lord!"

"Did you tell your case to any friend?"

"Oh, no, sir; naeboddy kens but himsel' and me! I kent he would not forget, but I didna ken hoo he wad help me till I saw you come riding over the brae, and then I said, 'There's the Lord's answer!'" Many a time has the recollection of this incident encouraged me to trust in the loving care of my heavenly father.—New Testament Anecdotes.

BEFORE AND AFTER BREAKFAST.

"Do you know," said a matron whose married life extended over a score of years, "that I attribute in a considerable degree the happiness of our life to a custom which my husband and myself have unfailingly respected—we never do any talking, hardly speak to one another, indeed, before breakfast. He was quite a confirmed bachelor when I married him, and he told me soon afterward that until he had taken his breakfast coffee he held the most morose and gloomy views of everything. I thought at first this was a little peculiar, but when my attention was thus called to it I decided that I, too, found life much more agreeable and small burdens much more bearable after I had broken my night's fast. Many wives tell me their most available time to 'talk over things' is during the dressing hour. I always feel like begging them to try some other time. It is a mental exertion to discuss the ways and means of this exacting existence of ours—too great a one, I think, to be indulged in before breakfast."—New York Times.

TO GIVE PRESENTS GRACEFULLY.

Did you ever receive a present that was given in such a begrudging fashion or with so little grace that you would have liked to hand it back to the donor if your innate politeness had not held you in check? Gifts thus received have no value in them, even though they be of surpassing worth in the eyes of the world. A single rose presented with a little graceful air of compliment and pleasure in the act is more appreciated than a string of priceless pearls that are doled out with scowls or in a manner that speaks more loudly than words of the ungracious sentiments of the giver. Let love and good will prompt whatever we may see fit to bestow, and let no thought of the return gage the cost or the quality of our own offering. To be a cheerful giver is a quality that is most desirable. True generosity does not lie in the lavishness of the donation, but in the sweet spirit that dominates and permeates it, whether it be great or small.—N. Y. Bazar.

COMMUNION.

We are not to come always to God in the attitude of beggars, but frequently in the guise of friends. Never to approach a person unless we want something of him, does not indicate that we greatly love him. We should be at least as quick to thank him for what he has given us as to ask him to give us more. Adoration must be a leading employment of the heavenly hosts, and it is our privilege to participate in it. Why should not God be pleased to have us tell him that we love him, even as an earthly friend is pleased. We cannot doubt that the nights spent by Jesus in prayer were chiefly devoted to that form of it which we call communion. In our hurried modern life which partakes so largely of the outward, and is in no danger of becoming cloister-like, we must give special heed to forming habits of meditation, learning to enjoy a quiet quarter of an hour with God, and cultivating fellowship with him.—Christian Standard.

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The saddest of the year,"
When from domestic scenes a man
Will quickly disappear;
For lo! around his humble home
Housecleaning waxeth rife,

And brooms, and mops and kindred
Absorb his wedded wife; [things
But he'll return at ev' atide
And sweetly smile we trust,
If in her work his busy spouse
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A genuine Dueber, solid silverine watch to every reader of this paper. CUT THIS OUT and send it to us with your full name and address, and we will send you one of these elegant, richly jeweled, genuine Dueber silverine watches by express for examination; you examine it at the express office, and if you think it a bargain and equal to any \$15.00 watch you ever saw, pay our sample price \$2.98, and express charges and it is yours. With the watch we send a 20 year guarantee for the case and 10 years for the movement, also our printed guarantee that you can return the watch at any time within one year if not satisfactory, and if you sell or cause the sale of six we will give you one free. Write at once as we shall send out samples for 60 days.

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Mention this paper when you write.

THE SECOND LITERARY CONTEST.

In the second literary contest, ending March 1st, there were 1,180 contestants, and of this number only five correctly supplied the missing word, which was "SOVEREIGNTY." The sentence was taken from Blaine's "Twenty Years of Congress," reading as follows:

"The Declaration of Independence by the British Colonies in America was something more than the creation of a new sovereignty."

According to previous announcement, four fifths of the receipts are equally divided among the successful contestants, of whom there are only five, named below, each receiving \$18.88.
Jas. Etzel, West Granville, Wisconsin.
Mrs. W. J. Kyle, Xenia, Ohio.
John H. Moyer, Evendale, Pa.
Amanda Lockhart, Hookstown, Pa.
J. C. Bratton, Xenia, Ohio.

Our Miscellany.

HE HAD HIS WAY.

My shaving-brush is missing, and my shoe-horn can't be found,
My comb and brush I cannot see, my cane is nowhere around,
My tall silk hat is ruffled up, my pens have gone astray—
But all this woe is naught to me, for baby's bad his way.

What though my shoes are minus strings, my manuscripts awry?
I know that this betokens baby's been spared a heartfelt cry.
What though the floor is ever strewn with toys, by night and day?
Is there not pleasure in the thought that baby's had his way?

It hurts to have my mustache pulled, and games at four A. M.
Are not just suited to my mind; but John is fond of them,
And, after all, it seems to me, no man can well gainsay
That there is lots and lots of fun when baby has his way.

So, son and heir, continue on thy bappy, blest career;
Ne'er shall thy daddy interpose to raise the scalding tear;
Whatever discomfort comes to me, cease not thy joyous play;
As far as I am concerned, my boy, go on and have thy way.
—John Kendrick Bangs, in *Harper's Young People*.

MOIRE antique sash ribbon makes a very pretty and effective whisk-broom holder. The ribbon is fringed and passed through a brass ring covered with embroidery silk and fastened, leaving one end longer than the other. On this longer end is fastened a pocket of watered silk for the whisk-broom.—*Fashions*.

THE story is told of an eminent divine and his bright boy that is not devoid of instructiveness. The father had a way of saying to his son, when leaving home, "Remember whose boy you are." The lad one day turned the tables by calling out to his father, "Good-by, papa; remember whose father you are."—*Examiner*.

SOFIA GREGORIA HAYDEN, the architect of the woman's building of the Columbian exposition, is not a native of the United States, as is generally believed. She is a Chilean by birth, the daughter of Eleena Davala, a Peruvian of Spanish descent. Santiago was her birthplace, and in appearance she shows her Spanish ancestry.

THERE is no food for persons suffering from a fever that is equal to boiled rice, either with or without milk, and rice-water is a cooling and nourishing drink that may be given to infants or adults. Rice is a carbo-hydrate, and converted into fuel for the system saves the living tissue from being burned out by the fever. Milk cannot always be taken with safety, for in certain feverish conditions of the system its casein cannot be digested.

A NEW style of chair-protector that has much to recommend it requires a yard of white wash silk thirty inches wide for a moderate-sized chair. Gather each end into a double band of fine, white linen, which, when finished, should be the same length as the width of the chair back and about six inches deep. Embroider the band in any design with white or colored wash silks, or simply feather-stitch each edge. Sew three white silk-covered rings to each end of each band and lace white ribbon back and forth and tie in bows at each side. If this tidy is made all in white it is very pretty, and at the same time easily laundered.—*Examiner*.

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A SUBURBAN house need not be a hideous spot on the landscape, for architects have now a system of selling plans by which copies can be bought at about the price of a good gate. The packing-box style of house is a poor investment. It is old-fashioned, ugly, clumsy. Ugliness in a house is foolishness. If an ugly house is to be sold again, it is impossible to get for it even the amount of money originally expended. The moral is, secure a good, artistic plan as the first step.—*Demorest*.

WASH-STANDS, bureau and buffet scarfs are made of the beautiful Fayal towel, which has a wide, lacy netting on each end, with fine fringe. These towels are made by the Fayal women, and many of them have most exquisite embroidery, beside the netting. The work is done in eorn, different soft colors and white. One towel being cut in two lengthways will make two covers, and when plain may have embroidered bands, and scattered all over designs. These are very elegant and unusual.—*Domestic*.

A ST. LOUIS physician considers the pineapple as possessing medicinal properties of a high order, and says of it in the *Globe-Democrat*, of that city: "In throat diseases, and even in diphtheria, it has seldom failed to give relief, and as an anti-dyspeptic it is invaluable. The unpleasant taste victims of indigestion experience on rising in the morning can be got rid of by the persistent use of this remedy, and as it goes at once to the root of the trouble and removes the cause, the cure is permanent. Any dyspeptic who has not tried the pineapple should lose no time in taking the advice of one who has."

HERBERT SPENCER is a round-shouldered, bald-headed, little old bachelor, who lives by himself, and who has but few personal friends. "It is related," says Mr. Crofton, in *Lippincott's*, "that his doctor once told him that it was not good for such a man as he to live alone, as his solitary meals were apt to be marred by thinking too much on deep subjects, and advised him to stay for awhile in some boarding-house, where the dinner-table talk would be conducted by nice, cheery, brainless folk. He went, but did not stay long. It came to his ears that the pleasant lady whose seat was next to him at table was a sad disappointment. A friend asked her how she liked the boarding-house; could she recommend it? 'Oh, yes, I think I can,' she replied; 'but there is a Mr. Spencer who thinks that he knows about science and philosophy. I have to correct him every night.'"

A WANT OF TO-DAY.

One of the most imperative wants of the day is pleasant, homelike, semi-independent apartments for self-supporting women.

This class numbers thousands, and so many of them are artists, designers and either students or practitioners of various professions, that the demand for some place for them to live has become a really serious matter.

Many of them want rooms where they can do their work and live at the same time. For these the boarding-house affords no attraction. It is too expensive, and it is usually impossible to get a sufficient amount of space to meet their necessities. They prefer light house-keeping, usually for economy's sake, sometimes because of health, as they often entertain decided ideas on the subject of diet. Others go to cooking-schools and find that plain and simple dishes which they can prepare for themselves are much better suited to their needs.

The professional woman and artist of to-day are looking forward with eager anticipation to some modern Moses who shall lead them out of the wilderness of boarding-houses and furnished rooms into the promised land of bright, cheerful, commodious and inexpensive apartments for women.

HITTING HIM BACK.

Editor *Cross Roads Chronicle*:—"We don't pay for poetry."
Poet—"I'm glad to hear it; for if you do you have been getting cheated outrageously."—*Puck*.

CONSUMPTION CURED.

An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested this wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 320 Powers' Block, Rochester, N. Y.

SPRING-TIME SUGGESTIONS.

When the bureau drawers, trunks, chests, cupboards and closets have been thoroughly cleaned, every drawer removed and the dark corners behind them searched for moths, then saturate them, as well as every cleat on which a shelf rests, with spirits of turpentine. Cover every shelf with newspapers and paste a lining of them inside the boxes and old trunks in which you intend to pack away the winter clothing of the family.

One ounce of strong carbolic acid added to each gallon of benzine makes a mixture which I think is better than spirits of turpentine for destroying carpet-bugs; but eternal vigilance must be used in conjunction with any remedy, if once the pests get a foothold in a home. A closet floor should never be carpeted, and every crevice and corner should be carefully cleaned.

Have you an unsightly fence or something of the sort at the back of your house? Don't fret because you cannot put it out of the way and the sight, but cover it with climbing vines, thus converting it into a delight instead of a nuisance to the eye. The scarlet bean, cucumber-vine, morning-glory, climbing nasturtium, Virginia creeper, and many other climbers which might be mentioned, will grow in almost any soil and require little, if any, care; and in a very short time, any or all of these will make a beautiful display of flowers and greenery, repaying a thousand-fold the trouble that may have been taken to give them a start.—*Waverley Magazine*.

CHEERFUL ROOMS FOR GIRLS.

The girls of the household should have cheerful rooms, where they may receive their girl friends and feel a pride in playing the hostess. Such a room need not be of large size, but it should be daintily and neatly furnished. There is no better way in which you can educate a girl to be neat and orderly than to give her a properly-furnished room and require her to take proper care of it. In this way she receives her first lesson in thorough housekeeping, and acquires habits of order and neatness.

The pleasure a girl takes from such a room as this, and the influence it exerts toward making her a womanly and domestic person should, in themselves, be strong enough arguments to induce a mother to sacrifice some of the showy fittings of her parlor in order to provide comfortable rooms for her girls.

It should, above all things, be thoroughly neat, sunny and cheerful, and should be the girl's private room, and all the belongings should be her personal property. It should be her daily duty to keep it in thorough order.

TOO LATE.

Why is it we so seldom recognize the value or beauty of nature in a friend or acquaintance till death has shut the door between us? Does it require the hush or darkness of night to bring out the perfume of the flower? The generous praise we lay on his grave may ease our self-reproach, but he has passed beyond its need; him it can neither soothe nor comfort nor cheer. Yet half, or less than half, of the appreciation of his virtues, of the recognition of his struggles we yield him dead, how it might have helped him while he lived and toiled and knew defeat and disappointment!

THE NEW METAL IN THE KITCHEN.

Aluminum, "silver of clay," has already made its appearance in the form of butter-disks, tea-strainers, cracker-jars and many other table utensils. It will not corrode or tarnish in the presence of coal-gas or anything else, except one or two of the most powerful acids. It is only half the price of silver, and is more durable. It possesses every quality of recommendation. It is as easily kept clean as porcelain, retains the heat as well as copper, and is exceedingly wholesome for general use. Its beauty, artistically, remains to be decided.

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Mrs. Ella M. Murray, Newton, N. C. writes: I have used one bottle and have found a great change. I had what the doctors here called Skin Leprosy—large brown spots, causing no pain or trouble, except the looks. Now they have entirely gone and I can recommend *Derma-Royale* highly. Please send me your terms to agents.

May Von Hoene, No. 807 Dayton Street, Newport, Ky. writes: For nearly five years I was afflicted with eczema. My face was a mass of sores and scabs and the itching was terrible. I found nothing that could help me until I tried your *Derma-Royale*. I have not used quite a bottle and my skin is smooth and clear. I call myself cured, and consider *Derma-Royale* the greatest remedy in the world.

Miss Lillie Hanna, No. 23 Brainard Block, Cleveland, Ohio, writes: Your *Derma-Royale* cured my blackheads in two nights.

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Farm Gleanings.

THE FARM BROOK.

WHAT is a farm without a brook? Doubtless there are many farms that have no brooks, but the dwellers on such farms not having acquaintance with brooks may not appreciate the difference between a farm with a brook and one without.

But any one having a brook for a neighbor or a companion and then going to a place where the voice of the brook is not heard, learns what value there is in the slender stream or the bounding, burly fellow that runs by all day, every day, but never succeeds in getting by.

How much better the farm appears with the silver thread, woven into the green, winding in and out of the golden foliage. What a picturesque feature it is in the landscape all about it.

It comes out of the wood, maybe, with a bound and many exclamations, as though glad to escape the somber shades and take a run in the sunny meadow. It is a thing of life, of beauty, and it talks and talks, and works as it talks, if the farmer gives it something to do; if he places a wheel in its way.

In the spring it runs and races like a boy let loose from school, but in August, when the wells are low, it has almost a weary limp, tugging at mill-wheels, often unsuccessfully, but still merry and willing, although not so buoyant. It is a health agent, helping, healing everything with which it comes in contact.

And the farmer's boy? What does the brook do for him? What would he do without a brook, after he has once made its acquaintance? Sail his boat in a wash-tub? There is no doubt that the farmer's boy is happier, and therefore better, who has a brook to play with. He is cleaner oftener than the boy without a brook, because he has to be washed oftener—every time he goes near the brook. He spends half of his time on the brook's banks, talking to it, confiding to it, and sending chip and leaf messages to the ocean, wherever it is. And what a cool place it is under the willows on the shelving banks, with the foam bells rising up when the projecting turf and boulders jostle the brook.

Why, a farm without a brook—well, it is very much unlike a farm with a brook, and any man who intends to buy a farm, let him look for a farm with a brook, for a brook is a feature and a factor of great utility.

GEORGE APPLETON.

THE BREEDING EWE.

There is no breeding animal on the farm so carelessly bred and so indifferently treated as the breeding ewe.

No record is made of the time she took the ram, and of course no idea of the time the will lamb can be gained. The probabilities are that she will have a lamb out in the storm, possibly at night, and by neglect lose it. Her condition has not been a matter of the least concern. If she has a supply of milk, all may be well; if she has not, she is blamed for it.

The brood-sow is quite another thing. Her forwardness is watched with some solicitude, and precautions taken as to her food and quarters.

The cow has attention given in the way of warm slops, like the sow, and a sheltered yard or a warm stable for her especial accommodation some weeks ahead of the expected event.

The same is usually true of the mare that is to bring a colt.

But the breeding ewe has less of these attentions given her. This is due to lack of interest taken in sheep raising. The situation and the wants of the ewe are not considered and studied, as with the sow, the cow and the mare. The farmer knows how and what to do that a crop of hogs shall be raised. He has given the subject proper attention; the experience he has will be remembered, and the means used to insure the welfare of the sow and her pigs.

Why not, then, with the breeding ewe? Why allow her to be neglected and run her chances without any such care and attention?

When the average sheep farmer shall pay as much attention to the details of sheep raising that the average hog farmer pays to his business, there will be more successful sheep raisers than there are. A little more sheep sense is wanted on most farms in this country.

R. M. BELL.

Recent Publications.

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GEORGIA.—(Experiment) Bulletin No. 18, October, 1892. Cheese and butter dairying. Bulletin No. 19, December, 1892. Culture of tobacco.

LOUISIANA.—(Baton Rouge) Bulletin No. 18. Analyses of fertilizers. Bulletin No. 19. Forage crops, grasses, clovers and small grains.

MAINE.—(Orono) Annual report for 1892. Part II. Secondary effects of pollenation.

MASSACHUSETTS.—(Hatch Station, Amherst) Meteorological bulletin 48. Bulletin No. 20. Report on insects.

MICHIGAN.—(Agricultural College) Bulletin No. 87, September, 1892. Smut in oats and wheat—hot water treatment. Bulletin No. 88, December, 1892. Fruit report.

MINNESOTA.—(St. Anthony Park) Bulletin No. 24, October, 1892. Ornamental timber trees, shrubs and herbaceous plants in Minnesota. Bulletin No. 25, December, 1892. Report on small fruits, grapes and spraying grape-vines.

MISSISSIPPI.—(Agricultural College) Bulletin No. 22, September, 1892. Grapes.

NEVADA.—(Reno) Bulletin No. 18, November, 1892. Cheese and its manufacture.

NEW HAMPSHIRE.—(Hanover) Bulletin No. 16, September, 1892. Effect of food on composition of butter fat. Bulletin No. 17, October, 1892. Stock-feeders' guide, with chart for use in the barn.

NEW JERSEY.—(New Brunswick) Bulletin No. 90. Grasshoppers, locusts and crickets. Bulletin No. 91. Some fungus diseases of the quince fruit.

NEW YORK.—(Geneva) Bulletin Nos. 46 and 47. September and November, 1892. Experiments in the manufacture of cheese.

NORTH CAROLINA.—(Raleigh) Bulletin No. 87c, October 20, 1892. Meteorological summary for September. Bulletin No. 87d, November 26, 1892. Digestion experiments with various feeding stuffs.

ONTARIO.—(Agricultural College Station, Guelph) Bulletin No. 84. Experiments with spring grains. Special bulletin. The teaching of agriculture in the public schools.

OREGON.—(Corvallis) Bulletin No. 22, January, 1893. Comparative tests of small fruits and vegetables.

SOUTH CAROLINA.—(Fort Hill) Bulletin No. 8, December, 1892. Determinations of phosphoric acid.

WISCONSIN.—(Madison) Bulletin No. 33, October, 1893. Rations for dairy cows.

U. S. DEPARTMENT OF AGRICULTURE.—(Washington D. C.) Office of experiment stations: Experiment station record for November, 1892. Experiment station Bulletin No. 11. A compilation of analyses of American feeding stuffs. Weather bureau: The diurnal variation of barometric pressure. Division of statistics: Report on the crops of the year, December, 1892. Report No. 100, on agricultural production and distribution of the world; tests of averages of condition; address of statistician at annual meeting P. of H. Reciprocity and agricultural exports. European crop reports for December. Notes on foreign agriculture. Freight rates of transportation companies.

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Selections.

UTILITARIAN.

'Tis said that the woman who lived in the shoe
Whipped all of her children on Sunday,
And when that was done, and the washing
was through,
She used them for clothes-pins on Monday.
—Good Housekeeping.

SOCIETY LUNCHEONS.

As arrangements for luncheons are unpretentious and require but little forethought, impromptu invitations are as general as those of "langer notice, whether given verbally or by letter, the longest being rarely over a week, while three or four days' notice is a favorite limit. Luncheon scores another point from the fact that two, three, four, and even five ladies, can be asked to meet each other without an attempt at enlivening the party by the presence of gentlemen. Of course, if a husband is able to come with his wife, or a brother with his sister, or even a bachelor alone, so much the better for the ladies; but the success of the luncheon does not depend on the company of one or even two gentlemen, ladies are so thoroughly at home with each other at this meal. They are like men at a club, they have so much in common, so much to say, and so little time in which to say it. A bond of interest is sure to spring up, even between strangers; no one feels dull and no one is out of it, or obliged to make labored conversation when they would rather listen to what some one else is saying. A party of ladies asked to meet each other at dinner is quite another thing, and falls very flat when the experiment is tried. Perhaps it is the fact of having to dress for each other that has such a depressing effect upon their spirits, for dull they are as a rule. Perhaps it is the long evening before them; but it is idle to speculate on the why or the wherefore; the reason is best known to ladies themselves. The half hour after luncheon, spent in either the drawing-room or the grounds, is always a pleasant one, and all too short; although it would be a mistake to try and prolong it, for after three o'clock a hostess invariably has other engagements, and an invitation to luncheon is not meant to include invitation to tea also. So three sharp is the hour of leave-taking, and a visitor who arrived close upon 1:30 has had a good stretch of her hostess' company; besides, she has claims on her own time also to satisfy.—*Queen.*

AN AMERICAN FABLE.

A bear who had been invited to visit the wolf had no sooner entered the house than he burst into tears and at once withdrew. "Why, my friend," said the wolf as he overtook him, "what means this strange conduct? Have I said or done anything to offend?" "Oh, no, but the first thing I saw on entering your house was a bearskin rug, and I am not a bruin who can look upon the hide of a deceased brother or sister and conceal my emotions. Excuse me, but that pelt might have belonged to my mother-in-law, and you may be her murderer." "My dear sir," observed the wolf, "your emotion does you credit, but I am obliged to inform you that it has been wasted." "What! Did my eyes deceive me?" "They did. Yankee genius now takes a calfskin, a couple of glass eyes and a handful of wooden claws and produces a beautiful bearskin to sell at \$4.50 on the installment plan. For your further information, let me say that your respected mother-in-law has long been doing duty in a museum as a mastodon sixteen feet high and 7,000 years old.

MORAL:

Be sure you are right and then weep; also keep track of your mother-in-law.—*New York Sun.*

A SURE CURE FOR EVERYTHING.

Mr. Wanamaker smiles and smiles at the harsh things said about his big Columbian stamps. They are going off like hot cakes, and when it becomes generally known that the gum on the obverse side of said stamps is medicated and warranted to cure catarrh, brace up a torpid liver, destroy the appetite for alcohol, morphine and tobacco, and relieve that tired feeling, the demand for the health-giving plasters will test the capacity of Uncle Sam's job office.—*Mimnapolis Tribune.*

EXERCISE AND GYMNASTICS.

At a recent meeting of a woman's club, where a paper on "Exercise and Gymnastics" had been read and discussed, one of the members gave the benefit of an experience of her own. She said it was her habit, when walking, to take as few inhalations as possible and holding them as long as she could. "I draw a deep breath, walking very rapidly when I have filled my lungs, and I do not take another until I have reached a certain point in the block. By practice I am able to get on with perhaps three inhalations through a long block. The result is exactly as if I had been running hard. My blood tingles all over me, and I seem to have brought every nerve and muscle into active play. In this way a short walk, if only to the elevated station or to catch a car a block away, gives me a great deal of condensed exercise." Another member of the club referred to the fact that her physician had instructed her to hold her breath when crossing a street. She had become so addicted to the habit now that she did it instinctively, filling her lungs involuntarily as she stepped on a cross-walk. Months of this practice had noticeably expanded her chest measure.

NATIVE ORIGIN OF CERTAIN FRUITS AND VEGETABLES.

Apples came originally from the East, brought by the Romans.
Crab-apples came from Great Britain.
Pears were also brought by the Romans from the East.
Apricots originated in Armenia.
The gooseberry is a native of Great Britain.
Damsons came from Damascus.
Quinces originated in Corinth.
The peach is a native of Persia.
Filberts were first found in Greece.
Lemons came from Assyria.
The fig originated in Asia.
Coffee is a native of Abyssinia.
Nectarines originally came from Persia, having been introduced into Europe in 1562.
Tamarinds came from the East and the West Indies.
The pomegranate is a native of southern Europe, Asia and Bombay.
Almonds came from Spain and Italy.
Bread-fruit is a native of the South Sea islands.

REMEDY FOR EARACHE.

"I am afraid I have greatly interfered with my own practice," said a celebrated aurist, "by giving the following advice to many of my friends. At the first symptoms of earache let the patient lie on the bed with the painful ear uppermost. Fold a thick towel and tuck it around the neck; then with a teaspoon fill the ear with warm water. Continue doing this for fifteen or twenty minutes; the water will fill the ear orifice, and flow over on the towel. Afterward turn over the head, let the water run out, and plug the ear with warm glycerine and cotton. This may be done every hour until relief is obtained. It is an almost invariable cure, and has saved many cases of acute inflammation. The water should be quite warm, but not too hot."—*Housekeeper's Weekly.*

WHAT EVERY WOMAN WOULD LIKE TO BE.

Rich enough to dare to wear an old-fashioned gown or bonnet.
Brave enough to pay her own car-fare and let her friend do the same.
Bold enough to compel her servants to do things her way, not theirs.
Wise enough to prevent getting cheated at the markets.
Systematic enough to superintend every detail of housekeeping.
Patient enough not to notice when Harry is cross.
Ditto when the children are fretful and quarrelsome.
Clever enough to keep her expense account straight.
Generous enough not to say in spite things which are not more than half true.
Good enough to be worthy the love of "the best man in the world."—*Fashions.*

MULE VERSUS LION.

Most of us laugh at the homely mule and admire the lordly lion, although one good mule is worth a thousand thieving lions. Most of us have laughed at the mule which attempted to look like a lion and was whipped by his master for the nonsense. There is something wrong in the public sentiment which caused that useful mule to aspire to be a worthless lion. There is too much disposition among the people to admire the worthless ideal, and make light of the useful reality.—*Atchison Globe.*

Promptness Insures Safety.

The insidious nature of a cold is one of its most dangerous characteristics. At first its hold seems very weak, but before one is aware it has worked its way into the system and has fastened itself upon the lungs, the throat, the digestive organs, the kidneys or the muscles with a grip that can scarcely be loosened.

Allcock's Porous Plasters are a sure remedy, if applied promptly. Do not wait for the slight pain to become a severe one, but put one of these renowned Plasters on the part affected, and not only will relief come, but protection from further disease will be secured.

Promptness, however, is essential. There is such a thing as being *too late*. Then even an

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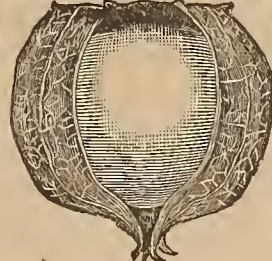
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NIGHT AIR.

Before we can hope to fight consumption with any chance of success, we have to get rid of the night-air superstition. Like the dread of cold water, raw fruit, etc., it is founded on mistrust of our instincts. It is probably the most prolific single cause of impaired health, even among the civilized nations of our enlightened age, though its absurdity rivals the grossest delusions of the witchcraft era. The subjection of holy reason to hearsays could hardly go farther. "Beware of the night air; be sure to close your windows after dark!" In other words, beware of God's free air; be sure to infect your lungs with the stagnant, azotized and offensive air of your bedroom. In other words, beware of the rock-spring; stick to sewage.

Is night air injurious? Since the day of creation, that air has been breathed with impunity by millions of different animals—tender, delicate creatures, some of them—fawns, lambs and young birds. The moist night air of the tropical forests is breathed with impunity by our next relatives, the anthropoid apes—the same apes that soon perish with consumption in the close though generally well-warmed atmosphere found in our northern menageries. Thousands of soldiers, hunters and lumbermen sleep every night in tents and open sheds without the least injurious consequences. Men in the last stage of consumption have recovered by adopting a semi-savage mode of life, and camping outdoors in all but the stormiest nights. Is it the draft you fear, or the contrast of temperature? Blacksmiths and railroad conductors seem to thrive under such influences.

Draft? Have you never seen boys skating in the teeth of a snow-storm at the rate of fifteen miles an hour? "They counteract the effect of the cold air by vigorous exercise." Is there no other way of keeping warm? Does the north wind damage the fine lady sitting motionless in her sleigh, or the helmsman of a storm-tossed vessel? It cannot be the inclemency of the open air, for even in sweltering summer nights the sweet south wind, blessed by all creatures that draw the breath of life, brings no relief to the victim of aerophobia. There is no doubt that families who have freed themselves from the curse of that superstition can live out and out healthier in the heart of a great city than its slaves on the airiest highland of the southern Apennines.—*Popular Science Monthly.*

FLORAL TABLE DECORATIONS.

Designs for floral table decorations are becoming more and more original, and the hostess who possesses individuality and the courage of her artistic convictions, is sure to evolve something unique for each entertainment, and her reputation grows apace.

A young hostess, who has a passion for color, recently gave a nasturtium luncheon, which for gorgeousness of color and artistic effect could hardly be excelled. The tablecloth was of light gold-leaf damask with a luster like satin, and in the center stood a rustic basket filled with growing nasturtium-vines, from which flowering sprays were trained to each place, there forming a wreath around a dainty basket of yellow China silk, overflowing with the brilliant blossoms in all tints, from deep, rich maroon through the orange shades to pale yellow, with here and there a Quaker-like, wood-colored bloom. These baskets were the lady's own device. She took medium-sized finger-bowls, covered each with a very full bag of the silk, leaving a narrow, shirred ruffle at the upper edge, then made a high handle of coarse wire, bent square across the top, wound it with yellow satin ribbon, trained a vine up one side, and finished it with a many-looped bow of green satin ribbon. One of the courses was nasturtium sandwiches, made of very thin slices of buttered bread, with nasturtium petals and leaves placed between them and peeping out from the edges.—*Demorest.*

A VALUABLE CEMENT FOR PREVENTING LEAKS ABOUT CHIMNEYS.

Dry sand, one part; ashes, two parts; clay, dried and pulverized, three parts. All to be sifted and mixed with linseed-oil into a paste. Add the oil little by little, using care not to get it too moist. Apply in dry weather. It will take a few days to become hard, but when hard, water will have no effect on it. It will adhere to metal as well as to wood. If you cannot procure the clay, omit it, and you have a cement that is still first-class.

Tried and recommended by A. B. C.

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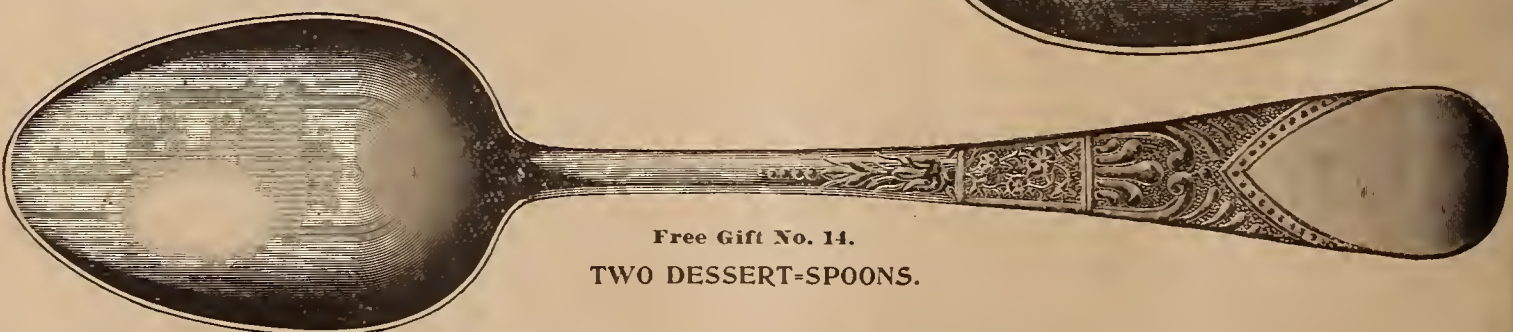
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PATRIOTISM.

As public opinion is slow to move, it may well be worth while to have the principles of rational, honest politics taught in our schools and colleges to a greater extent than is at present done. We hear much talk in school conventions of "teaching patriotism." But how is it to be taught? The practice of cheering the flag; of learning the biographies of some of our leading statesmen, or of learning to believe, without knowing why, that our government is the strongest and best on earth, will have little effect toward remedying our present political evils.

Civil government is something more than the written constitution, the names of the officers, the dates of election, and other such facts as are taught in our text-books on civil government.

The civil government that will help our children to get ideas which later will be of practical use in politics is that which shows the principles of party government, the methods of making nominations, of carrying elections, of making appointments to offices, and all the other details of our political life as it is in fact managed, together with the facts of history and political science which show that, however valuable in carrying single elections and advancing local interests dishonest political scheming may be, in the long run the interests of states, as of individuals, are furthered by honest principles; that great public questions are not settled till they are settled right, because "the power in men that makes for righteousness" is, after all, when men's eyes are opened, the dominant one.

—Century Magazine.

YOUNG HOUSEKEEPERS.

Young housekeepers always find more or less perplexities when they first begin to do their house work, especially about cooking, as it is really an art, and a fine one, to be a really good cook. Perhaps there is the most difficulty in making good bread. Two things are absolutely essential to begin with—good yeast and bread flour. Never attempt to make bread with pastry flour; you may make fair bread with it, but never really nice bread. If you have used milk to mix your bread with, and it is not as good as you would like, try water and a generous piece of lard or cottolene. If you have molded your bread before setting it to rise and it is dry, next time stir it as stiff as you can with a spoon, but do not mold it until it has been raised. When raised, cut it down with a knife and let it rise again. Then fold it into loaves with as little molding as possible, and have smooth loaves.

There are several methods of making good bread. One cook will succeed best with one method, another cannot make good bread that way, but never fails with another method; and so it is in making things. One cook will make lovely sponge-cake with boiling water and always fail with cold, and another will always fail with hot water. Everyone must experiment and find out which is her way, if she fails at first.

Many have trouble in making doughnuts. They will soak fat. It is said a tablespoonful of vinegar added to the fat when it is warm will prevent this trouble.—New York Bazar.

AN UNSIGHTLY OUTLOOK BEAUTIFIED.

A window looking out on a blank, brick wall was ingeniously transformed into a pleasure to the eye by the expenditure of some money and much thought. A flat, box-like structure of wood, very shallow, and painted inside and out to preserve it, was placed outside, covering the entire window, and secured by iron bands. The top was not wood, but glass, like a miniature slanting skylight; there was a ventilator at one side, which opened and shut by touching a spring. An artist was commissioned to paint on canvas a view of a beautiful sky and a distant garden, and this was tacked to the wood on every side. It suggests a garden to a household who are too busy to take care of growing plants, and is very restful.—Demorest.

TABBY CAT.

The term "tabby cat" is derived from Atab, a famous street in Bagdad inhabited by the manufacturers of silken stuff called atibi, or taffety. This stuff is woven with waved markings of watered silk resembling a "tabby" cat's coat.

TAKING DOWN THE STOVE.

In taking down the stove, if any soot should fall upon the carpet or rug, cover quickly with dry salt before sweeping, and not a mark will be left.

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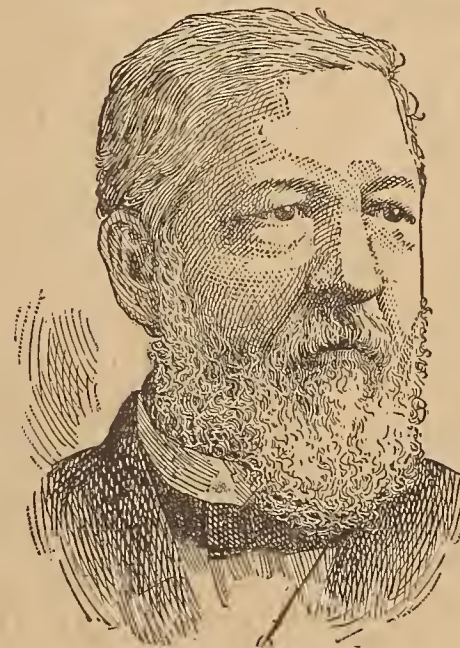
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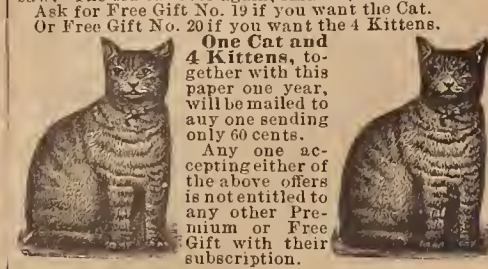
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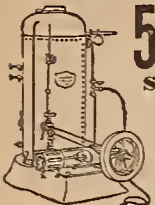


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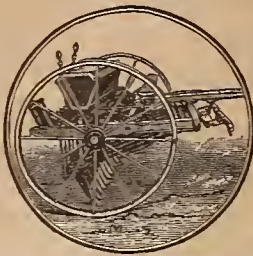
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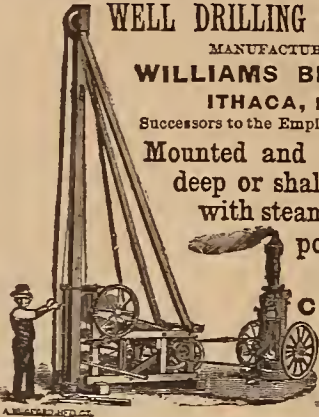
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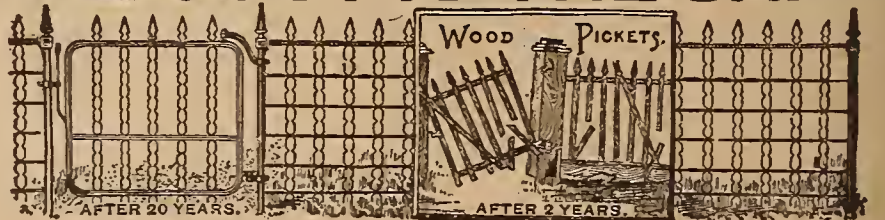
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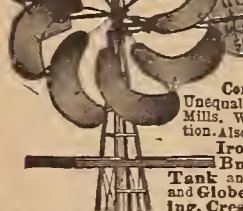
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